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information as of
September 1978
1977

Academic Calendar

The official academic calendar for each academic term is published in detail in the *Schedule of Classes* for that term. Faculty members and students should consult this source for final information about the academic year. The University reserves the right to change any published calendar, including that appearing in the *Schedule of Classes* and as provided below.

1978

<i>August 28</i>	Washington College of Law Fall Semester Begins
<i>September 5</i>	University Fall Semester Begins
<i>November 22</i>	Thanksgiving Holiday Begins after the Last Class and Laboratory
<i>November 27</i>	Classes Resume
<i>December 20</i>	Washington College of Law Fall Semester Ends
<i>December 22</i>	University Fall Semester Ends

1979

<i>January 1</i>	New Year's Day Holiday
<i>January 8</i>	Washington College of Law Semester Begins
<i>January 15</i>	University Spring Semester Begins
<i>February 19</i>	George Washington's Birthday Holiday
<i>March 10</i>	Spring Recess Begins after the Last Class and Laboratory
<i>March 19</i>	Classes Resume
<i>May 5</i>	University Spring Semester Ends
<i>May 9</i>	Washington College of Law Spring Semester Ends
<i>May 13</i>	Commencement
<i>May 28</i>	Memorial Day Holiday

It is the policy of The American University to provide equal opportunity for all qualified persons in the educational programs and activities which the University operates. In full and affirmative compliance with the laws of the United States and of the District of Columbia and all applicable regulations thereto, the University does not discriminate on the basis of race, creed, color, national origin, age or sex in the educational programs or activities which it operates. The University is committed to promote, in full measure, the realization for equal opportunity for all qualified persons regardless of race, creed, color, national origin, age or sex in its education programs and activities. The policy of equal opportunity applies to every aspect of the University's operations for the promotion of education and that indeed extends to admissions thereto and to employment therein.

REGULATIONS AND COSTS SUBJECT TO CHANGE:

The educational process necessitates change. This publication must be considered as informational and not binding on the University.

Each step of the educational process, from admission through graduation, requires appropriate approval by University officials. The University must, therefore, reserve the right to change admission requirements or to refuse to grant credit or a degree if a student does not satisfy the University in its sole judgment that he or she has satisfactorily met its requirements.

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Volume 1, Number 1 August, 1977.

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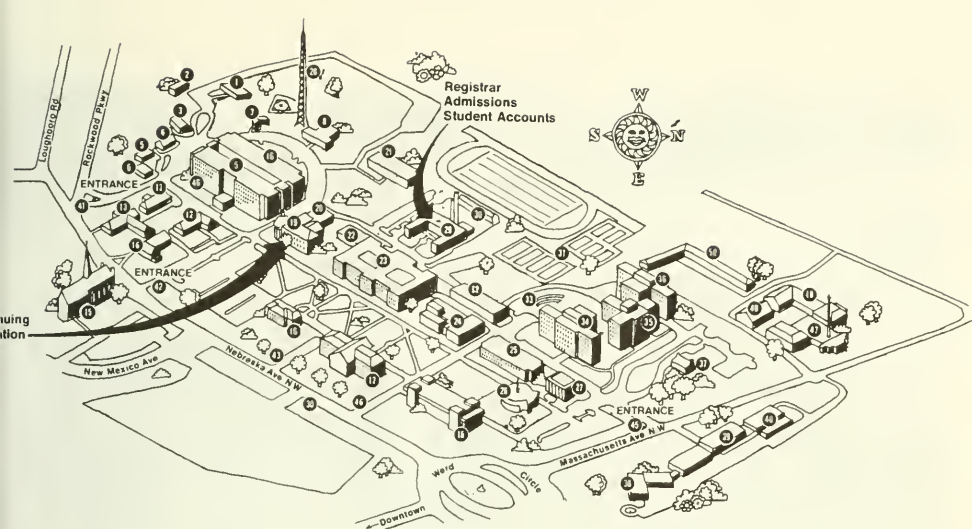
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Correspondence Directory

<i>Admission</i>	Office of Admissions, Financial Aid, and Veterans Affairs, Asbury Building
<i>Housing</i>	Director of Residential Life, McDowell Hall
<i>Scholarships and Loans</i>	Office of Admissions, Financial Aid, and Veterans Affairs, Asbury Building
<i>Part-time Employment</i>	Director, Career Development Center, Mary Graydon Center
<i>Program Information</i>	Respective college, school, or department
<i>Record and Transcripts</i>	Office of the Registrar, Asbury Building
<i>International Student Advisor</i>	International Student Office, Mary Graydon Center
<i>Financial Transactions</i>	Office of Student Accounts, Asbury Building
<i>News and Public Information</i>	Office of University Development, 5010 Wisconsin Avenue, N.W.
<i>To complete above addresses, write:</i>	The American University Washington, D.C., 20016
	<i>For additional information, phone, write, or visit:</i>
	Office of Admissions, Financial Aid, and Veterans Affairs Asbury Building The American University Massachusetts and Nebraska Avenues, N.W. Washington, D.C., 20016 (202) 686-2211



Campus Map

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49. Library—Seminary
50. Administration Building—Seminary



Introduction

The American University campus shares the highest land in Washington, D.C., with one of the city's most beautiful residential areas. The 74-acre campus is only minutes by bus or car to downtown Washington, the Federal Triangle, the Kennedy Center, the art galleries on P Street, or the bike paths along the C & O Canal and Potomac River.

American's location provides its students in almost every discipline—from the arts to science and public affairs—with opportunities to draw upon Washington's many resources to add dimension to their learning and personal experience. Students have access to a variety of institutions, including the National Gallery of Art, Library of Congress, National Institutes of Health, Smithsonian Institution, federal agencies, and private associations.

An independent, Methodist-related institution, *American* enrolls annually some 12,500 students from all 50 states and approximately 86 countries in its colleges and schools. Through a variety of degree programs, students can learn how the theory of the classroom fits into the workings of government, science, business, and the liberal arts. In the words of the University's President Joseph J. Sisco, former undersecretary of state for political affairs, "Through quality academic programs and personal attention to students, we endeavor to provide both a foundation in the liberal arts and active, practical experience. We believe this combination will aid students in coping with the increasing complexities and challenges of modern society."



Gisela Huberman teaching about language and the mind.

American places quality of teaching as its first criterion in selection, retention, and promotion of faculty members. The University encourages individuality in its teachers and their approaches, just as it does in its students and their educational goals.

In 1976-77, of the 444 full-time faculty members, 71 per cent held earned doctorates. Many of the full-time faculty members and many of the over 500 part-time faculty members come from Washington's professional community. "The icing on the cake," as one professor calls them, these scientists, economists, writers, historians, government officials, and performing artists bring their personal expertise and enthusiasm to *American*. Some, like former Senator Fred Harris, HEW controller John Young, and former National Labor Relations Board chairman Betty Southard Murphy, come to teach a course. Others, like Carl Madden, former chief economist for the Chamber of Commerce, and Edward Bliss, former news editor and producer of CBS Evening News, come to stay. Many others come to give guest lectures and special seminars.



Marilyn Lewis examining student's restaurant design.



Elliot Milstein's class reviewing performance in their mock trial.

"When teaching works, it's like being in a jazz combo. The themes are in your head and you play your instrument. You don't know how others will play. The reverberations begin, and it comes together into something unpredictable and beautiful. When that happens, it's terrific."

—Jeffrey Reiman, professor,
Center for the Administration of Justice

"Teachers must not only transmit experienced knowledge, but they must create new knowledge. The teacher involved in research can bring the vitality of exploration and inquisitiveness to the classroom and students."

—Richard Berendzen, Provost

"It's not just the dissemination of information. The teacher must be willing to open doors so the student can engage with the teacher in grappling with the questions that make one's intellectual life meaningful."

—Valerie French, professor,
History Department



President Joseph J. Sisco awards honorary degree to Marian Anderson, following his inauguration, October 21, 1976. Others, from left to right, Chief Justice Warren E. Burger, W. Averell Harriman, staff member John Riddick, Chairman of the Board James K. Mathews.

History

In 1893, *The American University* was incorporated by Act of Congress. In 1896, the first building, the Hall of History, was dedicated to the University's founder, Methodist bishop John Fletcher Hurst. Hurst Hall has now been joined by 29 other buildings, including five high-rise dormitories. Over the years, the University's enrollment and number of degrees have also increased steadily. The first class in 1914 had 28 students. In 1916, the University awarded two degrees at its first commencement. In May, 1976, the University awarded over 2,900 degrees.

American, which was founded as a graduate school of history and public affairs, today offers a wide range of programs including undergraduate and graduate, degree and nondegree study. The College of Arts and Sciences, founded in 1925 as the College of Liberal Arts, embraces 25 teaching units ranging from American studies to sociology and includes the School of Education (established in 1975) and the School of Communication (established in 1976). Other schools are the Washington College of Law (established in 1949), School of Business Administration (1955), School of Government and Public Administration (1957), School of International Service (1958), the Division of Continuing Education (1964), and the Lucy Webb Hayes School of Nursing (1965). In 1975, the College of Public Affairs was established, incorporating the School of Government and Public Administration, School of International Service, Center for the Administration of Justice, and the Center for Technology and Administration.

Accreditation

The American University is accredited by the Middle States Association of Colleges and Secondary Schools, The University Senate of The Methodist Church, the National University Extension Association, and the Adult Education Association of the USA. It is a member of the Association of American Colleges, The Association of Urban Universities, the Association of University Evening Colleges, the National Intercollegiate Athletic Association, The East-Coast Conference, the Eastern Intercollegiate Athletic Association, the Association for Intercollegiate Athletics for Women, and is approved by the American Association of University Women. A charter member of the Council of Graduate Schools in the United States. The University is also a member of the Northeast Association of Graduate Schools.

The School of Business Administration is a member of the Middle Atlantic Association of Colleges of Business Administration and a charter member of the American Assembly of the American Association of Collegiate Schools of Business.

The Washington College of Law is a member of the Association of American Law Schools and is approved by the American Bar Association.

The School of Education in the College of Arts and Sciences is a member of the American Association of Colleges for Teacher Education and is accredited by the National Council for Accreditation of Teacher Education in both elementary and secondary areas.

The Department of Music, College of Arts and Sciences, is a member of the National Association of Schools of Music.

The Department of Chemistry, College of Arts and Sciences, is accredited by the American Chemical Society.

The Department of Psychology, College of Arts and Sciences, is accredited by the American Psychological Association.

The School of Nursing is accredited by the National League of Nursing and is approved by the Nurses Examining Board of the District of Columbia.

Enrollment

The student body of the University is composed of students from all 50 states and approximately 86 foreign countries. In the 1976-77 academic year, full-time undergraduates numbered 5,013 (including 275 Washington Semester students), and part-time undergraduates numbered 1,017. A total of 3,502 (including the Washington College of Law) enrolled for full-time and part-time graduate study, and some 2,942 students attended on a nondegree basis, either on the campus or at various metropolitan Washington off-campus locations.

Degrees Conferred, 1976

<i>College or School</i>	<i>Associate</i>	<i>Bachelor's</i>	<i>Master's</i>	<i>Ph.D.</i>	<i>Ed.D.</i>	<i>J.D.</i>	<i>Total</i>
Arts and Sciences, College of	7	762	332	66	8		1175
Business Administration, School of		248	108	6			362
Continuing Education, Division of	14	32	39				85
Law, Washington College of						175	175
Nursing, Lucy Webb Hayes, School of		36					36
Public Affairs, College of							
Admin. of Justice, Center for the	95	264	45				404
Gov. and Public Admin., School of		210	123	12			345
International Service School of		124	51	20			195
Tech. and Admin., Center for		30	126				156
University Total	116	1706	824	104	8	175	2933

Facilities

UNIVERSITY LIBRARY The University Library contains over 375,000 volumes and in excess of 200,000 microfiche and cards. Over 3,000 periodicals are received each year. Special collections include excellent pre- and post-World War I materials, League of Nations and United Nations documents, the Peace Society Library, the Artemus Martin Collection of Rare Materials on Mathematics, the Friedrich Collection on Economics, the Franklin Collection on pre- and post-World War II Germany, and the Spinks Collection of rare Japanese materials. The Library also has on microfilm the complete card catalog of the Tokyo Bunko Oriental Library of the National Diet Library and the University of Tokyo.

The American University is a member of the Consortium of Universities of the Washington Metropolitan Area (including five universities and four colleges). Consortium policy permits any currently enrolled student with a valid library card in one institution to use the library and arrange inter-library loans from any library of the other member institutions.

In the spring of 1977, construction began on a new \$7.8 million library facility. Stage I of the new library, to be opened during academic year 1978-1979, will substantially expand space for the housing of materials, nearly treble student seating, and provide a facility for an audio-visual learning resource center. Stage II of the library, to be constructed at a later date, will provide room for a total library capacity of 900,000 volumes.

LANGUAGE LABORATORY The language laboratory in the Asbury Building can serve up to 80 students simultaneously. A closed circuit television is in the student lounge.

RADIO WAMU-FM is the public radio service of *The American University*. As a 50,000 watt, 24-hour FM station with listeners throughout the Washington-Baltimore metropolitan areas, WAMU-FM offers a diverse, commercial-free radio service 365 days a year. WAMU-FM is financed through funds from *The American University*, public and private grants, and contributions by the listening public. The station is a member of National Public Radio, the only noncommercial radio network in the United States.

COMPUTATION CENTER The center serves the computer research and instructional needs of both faculty and students. It is supported by an IBM 370/145 computer system with OS batch and CMS and MUSIC interactive systems. Languages used at the Computation Center include BASIC, COBOL, FORTRAN, and PL/1. Each semester, members of the Computation Center staff offer informal noncredit courses in selected computer languages as well as seminars in those software package programs available at the center.

RECREATIONAL FACILITIES The University maintains on-campus facilities for a variety of recreational activities, with the majority of the indoor facilities being located in Cassell Center. This center has billiard and games rooms, saunas, bowling lanes, a weight room, golf practice nets, karate and exercise studio, a swimming pool, and a basketball gymnasium. Additional indoor activities are available in Clendenen gymnasium where students find opportunities for basketball, volleyball, badminton, table tennis, and gymnastics.

Outdoor facilities include eight tennis courts and hitting boards, a quarter-mile cinder track, softball diamonds, basketball courts, a soccer field, and picnic grounds.

Alumni Association

The alumni, numbering more than 32,000, are represented by the elected officers of the Alumni Association. They reside in all 50 states and a number of foreign countries.

There are area chapters of the association in major cities of the United States and groups of alumni assist with student recruitment, fund raising, job placement activities, continuing education/seminars, and fellowship.

Admission Information

Campus Visits and Interviews

Prospective students are invited to visit the University but are not required to do so. Students are asked to make an appointment with the Office of Admissions, Financial Aid, and Veterans Affairs three weeks in advance if by mail, two weeks if by telephone.

Prospective freshmen participate in small group conferences conducted by an admission officer, who will review admission policy and procedure and answer questions about the University. Applicants should be prepared to submit a brief resume of their academic qualifications, i.e., academic average, College Board scores, and rank in class.

Campus tours are usually available for visitors after the conference. However, during holiday periods when the University is not in session, it may not be possible to gain access to classroom buildings and dormitories, and tour guides may not be available. At those times, the University offers visitors a self-guided tour pamphlet.

Students attending another college or university who are interested in transferring to The American University may make appointments in advance for individual conferences for admission information with an admission officer. A transfer student should have either an official transcript of previous work forwarded to the Office of Admissions, Financial Aid, and Veterans Affairs prior to his or her visit, or bring a personal copy for use in the conference only.

Applicants for graduate study may also make appointments for admission information with an admission officer. Transcripts of previous work are helpful in such interviews.

The Office of Admissions, Financial Aid, and Veterans Affairs is usually able to arrange classroom visits for prospective students when the request has been made well in advance of the visit. However, a visitor may attend classes with a friend enrolled at the University if permission of the professor has been granted in advance. Saturday class offerings are very limited.

The University does not have facilities on campus for the accommodation of overnight visitors unless arrangements are made in advance with a friend. A list of convenient motels and hotels is available on request.

Admission to Undergraduate Study

Application for admission to undergraduate degree programs may be made for any fall, spring, or summer term.

The applicant is required to submit the application form and a nonrefundable application fee of twenty dollars. Forms may be obtained by writing or telephoning the Office of Admissions, Financial Aid, and Veterans Affairs.

Applications and all supporting documents must be on file in the Office of Admissions, Financial Aid, and Veterans Affairs by the following dates:

Fall—August 1

(Transfer applicants to the School of

The applicant is responsible for requesting that official transcripts and test scores be sent directly from the issuing institutions to The American University Office of Admissions, Financial Aid, and Veterans Affairs.

Transfer applicants must request each collegiate institution previously attended to send directly to the Office of Admissions, Financial Aid, and Veterans Affairs an official transcript of all work taken. Attendance at all institutions must be reported regardless of whether or not credit was earned or is desired by the applicant. Failure to report all previous academic work will be considered sufficient reason for rejection of an application or for dismissal from the University.

Applicants may expect to receive notice of decision on admission approximately four to six weeks from the time the application and all supporting documents are received by the Office of Admissions, Financial Aid, and Veterans Affairs.

Freshman Requirements

A graduate of an approved secondary school who has completed sixteen acceptable units, fifteen of which are academic or college preparatory in nature and include four units in English and two units in academic mathematics, will be considered for freshman standing. Applicants to the College of Arts and Sciences should also have completed satisfactorily two years of the same foreign language.

The following College Entrance Examination Board Tests should be taken as early as possible and the Board should be requested to send official score reports directly to the Office of Admissions, Financial Aid, and Veterans Affairs.

- (1) The Scholastic Aptitude Test (required)
- (2) The English Composition Achievement Test (required for placement)
- (3) Applicants who plan to continue the study of a foreign language which was begun in secondary school may wish to submit scores on the appropriate Foreign Language Achievement Test to be used in placing the student at the proper level of work. The test should be taken as early as January if possible, but no later than May for Fall admission.
- (4) It is recommended that the Mathematics Achievement Test (either Level I or Level II) be taken by any freshman applicant whose intended major program of study will require the completion of course work in mathematics and/or statistics either as a requirement of the major or as a related requirement.
- (5) Additional Achievement Test scores may be submitted (no later than May for fall admission) at the discretion of the applicant.

The American College Test scores are also acceptable if the student does not plan to take the College Entrance Examination Board Test.

EQUIVALENCY DIPLOMA Holders of equivalency diplomas issued by state departments of education are eligible for consideration as freshmen but are subject to an entrance examination at the direction of the Office of Admissions, Financial Aid, and Veterans Affairs.

Veterans or present members of the armed forces who have taken the General Education Development Test, the Comprehensive College Test, or the General Examinations of the College Level Examination Program, should apply to their state department of education for an equivalency diploma. Official certification of the diploma should be sent by the state department of education directly to the Office of Admissions, Financial Aid, and Veterans Affairs.

SCHOOL OF INTERNATIONAL SERVICE FRESHMAN APPLICANTS In addition to standards and procedures pertaining to freshman admission at The American University, candidates for admission to the School of International Service must present evidence of outstanding personal and academic qualifications. Eligibility for freshman consideration normally requires a 3.00 grade-point average in secondary school. Other factors considered are leadership qualities, character, and personal interest.

EARLY ADMISSION The American University offers an opportunity for admission a year earlier than normal, to freshman applicants whose ability, academic achievement, and general maturity indicate that they are ready to initiate collegiate work. Such applicants must fulfill in general the requirements set out above.

The Office of Admissions, Financial Aid, and Veterans Affairs will send information to secondary school principals, counselors, or individual students who inquire about such admission. Each

individual is considered on his or her own merit. However, major factors important to evaluation are:

- (1) The secondary school record, with special reference to grades achieved and the pattern of courses taken.
- (2) Performance on the College Entrance Examination Board Tests, or the American College Tests.
- (3) The recommendations of the secondary school principal and counselor.
- (4) A letter from the applicant stating the reasons for seeking early admission.
- (5) Possibly an interview with a screening committee.

ADVANCE PLACEMENT By any of the following means, freshman applicants may earn advanced standing credit which may be used toward filling degree requirements:

(1) The College Entrance Examination Board's Advanced Placement Program. In some secondary schools enriched courses are offered under this program. On the basis of scores achieved in the special examinations given, the applicant may be granted actual college credit or advanced placement in courses.

(2) The College Level Examination Program (CLEP). Credit may be earned for superior performance in the following subject matter examinations: American Government, American History, Analysis and Interpretation of Literature, Biology, College Composition, Computers and Data Processing, English Literature, Elementary Computer Programming—FORTRAN IV, General Chemistry, General Psychology, Introductory Marketing, Introductory Micro- and Macroeconomics, Introductory Microeconomics, Tests and Measurements.

From time to time, additional subject matter examinations are added to those listed above. Applicants will be kept informed of additions to the list. For complete details on the CLEP at The American University, write the Office of Admissions, Financial Aid, and Veterans Affairs.

For information about taking CLEP tests, write to: The College Level Examination Program, Box 1821, Princeton, New Jersey, 08540.

(3) Credit earned while attending a regionally accredited college or university, either in a summer session or during the regular school year. Applicants must have an official transcript of the work completed sent directly from the other college to the Office of Admissions, Financial Aid, and Veterans Affairs of The American University.

Credit may be earned in a combination of the above programs except that duplicate credit will not be given.

Transfer Student Requirements

To be considered for transfer admission, applicants normally should have maintained a minimum 2.00 (on 4.00 system) grade-point average or the equivalent at a regionally accredited collegiate institution, or an institution which is a Recognized Candidate for Accreditation, and should be in good academic and social standing at the school previously attended.

Applicants to the School of International Service should have maintained a minimum 2.75 grade-point average (on 4.00 system).

ADVANCED STANDING Transfer students may normally expect to receive credit for courses taken at regionally accredited collegiate institutions or institutions which are Recognized Candidates for Accreditation, if the courses were completed with grades of A, B, C, or equivalent of P on a pass-fail system where P is specifically designated as indicating a quality of work no lower than C on a conventional grading scale, and if the courses are appropriate for academic credit.

Courses completed with grades of D will be accepted on transfer from each previous school in which at least a 2.00 grade-point average (on 4.00 system) has been maintained, subject to the following conditions: A course with a grade of D may not be applied toward a major or major-related course requirement or, in normal circumstances, to the satisfaction of English requirements.

A maximum of 30 semester hours, or the equivalent, may be accepted on transfer for a combination of relevant work completed satisfactorily (a) in Armed Services School courses recommended for baccalaureate credit by the American Council on Education, or (b) for associate or baccalaureate credit as recommended by the Defense Activity for Non-Traditional Educational support (formerly United States Armed Forces Institute).

An additional 30 semester hours, or the equivalent, may be granted for relevant work completed in

college-level nondegree, extension, or correspondence courses offered through an accredited collegiate institution which accepts the credit for its own degree.

A grant of 30 semester hours of advanced standing credit in the area of undergraduate electives may be awarded to students who, at the time of admission to an undergraduate degree program, present evidence that they have been licensed to practice as: (1) attorneys, (2) dental surgeons, (3) certified public accountants, (4) medical doctors, or (5) accredited members of other licensed professions, by special permission of the Committee on Undergraduate Admissions, Scholarships, and Financial Aid.

Transfer students may be awarded credit for satisfactory scores in Subject Matter Tests of the College Level Examination Program (See information on Advanced Placement under Freshman Requirements above.). In addition, transfer students whose prior records reflect assignment of credit toward a degree for General Examinations of the CLEP will be granted appropriate credit.

A maximum of 90 semester hours of credit, or the equivalent, will be acceptable on transfer from four-year collegiate institutions (or a maximum of 75 semester hours credit with an associate's degree from a two-year or four-year collegiate institution).

To be eligible for a degree from The American University, an undergraduate student must complete a minimum of 30 semester hours in residence at The American University out of the last 60 semester hours toward his or her degree. To satisfy this requirement, the student must be enrolled as a degree student at the time that these semester hours are taken and satisfactorily completed. Nondegree work cannot be applied toward the satisfaction of the residency requirement. A student must complete a minimum of 15 hours of upper-level course work in his or her major at The American University. More may be required by the department chairman or dean in accordance with normal requirements for graduation. A student may not transfer more than 90 semester hours toward an undergraduate degree.

Courses accepted for transfer will not be included in the grade-point average to be maintained at The American University, but they will count toward the total number of courses required for graduation.

Decisions on transfer applications usually cannot be made on less than 12 semester hours of work or the equivalent. However, the secondary school record and College Board scores (as required for freshmen, q. v.) are required for those with less than 12 semester hours of transferable work, to aid in reaching a decision.

Notice of Admission

As soon as possible after all required documents have been received in the Office of Admissions, Financial Aid, and Veterans Affairs, the student will be informed of the decision on his or her application.

Full-time undergraduates entering in the fall semester are required to pay a nonrefundable \$100 tuition deposit to reserve a place in the class.

Complete detailed instructions are furnished with the notice of admission.

Admission for Part-time Undergraduate Students

A student enrolled in fewer than 12 semester hours is considered to be a part-time student.

Applicants considering part-time study in a degree program are cautioned that they may be unable to complete the necessary course work for degrees by attending evening classes only. Before applying they should consult with the department chairmen in disciplines of their proposed majors to ascertain if the required courses will be available to them.

Part-time degree applicants are required to meet the same standards for admission as full-time applicants, and should follow the instructions under either Freshman requirements or Transfer Student Requirements, whichever is appropriate, with the following exceptions pertaining to College Board Tests:

(1) If the Freshman applicant has taken College Board Tests within the past five years, he is required to communicate with the College Entrance Examination Board, Box 592, Princeton, New Jersey, 08540; or Box 1025, Berkeley, California, 94701, to request that official scores be sent directly to The American University Office of Admissions, Financial Aid, and Veterans Affairs.

(2) If the applicant completed secondary school within the past two years and did not take College Board Tests, the applicant must arrange to do so. Information on how to apply may be obtained from the College Entrance Examination Board, address given immediately above.

(3) If the applicant completed secondary school more than two years ago and did not take College Board Tests, the applicant may be asked to take an alternate examination at the direction of the Office of Admissions, Financial Aid, and Veterans Affairs.

(4) The American College Tests are accepted in lieu of the College Board Tests.

Readmission for Undergraduate Students

An undergraduate student whose studies at the University are interrupted for any reason for a period of one semester (excluding the summer sessions) must submit a formal application for readmission to the Office of Admissions, Financial Aid, and Veterans Affairs at least two months in advance of the beginning of the semester or summer session for which he or she wishes to be readmitted, unless written permission to study at another collegiate institution has been secured in advance or the student has been granted an official leave of absence. (See transfer credit information under "General Academic Information and Regulations" in this publication.) If a student was in good standing at the time that he or she left the University, and if he or she has maintained a satisfactory grade point average at another school, the student's readmission is virtually assured. It is to a student's advantage to apply for readmission as early as possible so that the student may advance register. If readmission is approved, the student is subject to the academic requirements and regulations in effect at the time of his or her readmission. Students applying for undergraduate readmission must pay a fee of \$20.

Transfer from Nondegree to Undergraduate Student Status

Students wishing to transfer from nondegree status at The American University to undergraduate degree status must submit a formal application for admission to an undergraduate program through the Office of Admissions, Financial Aid, and Veterans Affairs. If a student is accepted into an undergraduate degree program, a maximum of 30 semester hours of credit may be transferred from the nondegree program to the degree program. If the student is denied admission to an undergraduate program, the student may not reregister at The American University for further courses.

Admission to Graduate Study

The minimum University requirements for consideration for admission to graduate study are set out below. **Please refer also to the table following these requirements and to the appropriate college, school, and department sections of this publication for any additional requirements of the various teaching units.**

- (1) Possession of a bachelor's degree earned at an accredited college or university.
- (2) A 2.50 cumulative grade-point average, based on a 4.00 system, in an undergraduate program, calculated on the last 60 semester hours of course work completed and presented at the time of consideration of application for admission. If the last 60 hours include some hours in a semester, all the hours taken in that semester must be evaluated, and
- (3) Based on a 4.00 system, maintenance of a cumulative grade-point average of at least 3.00 in all relevant graduate work for which a grade has been awarded.
- (4) Or, instead of items (1), (2), and (3) above, an applicant for graduate study may be admitted without reference to his or her undergraduate average provided he has maintained either a 3.30 cumulative grade-point average in a master's degree program completed at an accredited institution, or a 3.50 cumulative grade-point average in the last 12 semester hours which are part of a master's or doctoral degree program still in progress at such an institution at the time of the evaluation of his application, or in graduate work taken in a nondegree status at The American University and applicable to the degree program for which he is applying.
- (5) In the case of applicants to professional terminal master's degree programs, teaching units may, with the approval of the Graduate Studies Committee and the Provost, establish alternative admission criteria if the undergraduate degree is over five years old.

The standard deadlines for application are:

Fall—August 1
Spring—December 1
Summer—April 15

Applicants should also refer to the table below which lists exceptional deadlines and additional requirements of the academic units.

Graduate Admission Requirements

<i>Teaching Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Application Deadline</i>	<i>Additional Requirements</i> (Note: For specific grade-point averages and test scores, consult the individual program descriptions in this publication.)
College of Arts and Sciences				
Anthropology	M.A., Ph.D.	All terms, preferably fall.	Standard, but advised to apply by March 1 for summer and fall.	Two academic letters of reference; an example of student's work, e.g., term paper; additional information available from dept.; send GRE scores if available.
Art	M.A., M.F.A.	All terms	Standard.	Two letters of recommendation if first degree not earned in dept. <i>Art History</i> : Must have at least 18 undergraduate hours in art history. <i>Fine Arts</i> : Portfolio must be submitted to dept.
Biology	M.S.	All terms.	Standard.	Two letters of recommendation; GRE Aptitude and Advanced.
Chemistry	M.S., Ph.D.	All terms.	Standard.	B.S. in chemistry; interview may be helpful.
Communication, School of	M.A.	Fall only.	April 1 for Public Affairs and Journalism, and Public Communication; June 1 for Media Studies and Interdisciplinary Studies: Film.	Must submit special background and 1,000 word personal statement directly to the school in addition to Univ. application. For instructions, see separate brochure "Graduate Information, School of Communication." Only full-time students should apply. (Media Studies may accept some part-time students.) Two letters of recommendation required; interview not required.
Economics	M.A., Ph.D.	All terms, usually fall only for Ph.D.	Standard, but Ph.D. advised to apply before February 1.	GRE Aptitude recommended; two letters of recommendation recommended for M.A., but required for Ph.D.
Education, School of	M.A., M.Ed., Ed.S., Ph.D., D.Ed.	All terms.	Standard, but fall applicants advised to apply by May 1. Students applying for financial aid should sub-	Two letters of recommendation with Univ. application; GRE Aptitude or Miller Analogies Test. Ph.D., D.Ed.: In most cases, should have master's degree. <i>Counseling M.Ed.</i> : Two letters of recommendation with Univ.

Graduate Admission Requirements (Continued)

<i>Teaching Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Application Deadline</i>	<i>Additional Requirements</i> (Note: For specific grade-point averages and test scores, consult the individual program descriptions in this publication.)
College of Arts and Sciences (cont.)				
			mit admission and aid applications by February 1. <i>Counseling M.Ed.</i> : March 1 for fall, October 15 for spring, January 15 for summer.	application; GRE Verbal, Quantitative, and Advanced Psychology.
History	M.A., Ph.D.	All terms.	Standard.	Two letters of recommendation from recent professors; GRE Aptitude; no direct admission to Ph.D. from B.A. level; Ph.D. applicants should have substantial beginning in a foreign language.
Interdepartmental Science	M.S.S.T.	All terms.	Standard.	Two letters of recommendation; GRE Aptitude or Miller Analogies Test.
Language and Foreign Studies	M.A.	All terms.	Standard.	Two letters of recommendation from recent professors unless previous degree earned in dept. <i>Linguistics</i> : Applicants should have developed a proficiency in a foreign language.
Literature	M.A., Ph.D.	All terms, but fall only for Ph.D.	Standard for M.A., January 15 for Ph.D.	Two letters of recommendation for M.A.; at least two letters of recommendation for Ph.D.; GRE Aptitude recommended. Ph.D.: Samples of written work highly desirable; personal interview strongly recommended.
Mathematics, Statistics, and Computer Science	M.A., M.S., Ph.D.	All terms, preferably fall.	Standard, except for graduate assistantships: April 1 for fall.	<i>Computer Science</i> : GRE Aptitude preferred; two letters of recommendation; previous course or work experience in computing or willingness to do noncredit remedial work before beginning program. <i>Mathematics Ph.D.</i> : Two letters of recommendation unless previous degree earned in dept.

Graduate Admission Requirements (Continued)

<i>Teaching Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Application Deadline</i>	<i>Additional Requirements</i> (Note: For specific grade-point averages and test scores, consult the individual program descriptions in this publication.)
College of Arts and Sciences (cont.)				
				<i>Statistics Ph.D.</i> : Two letters of recommendation unless previous degree earned in dept.
Performing Arts	M.A.	All terms.	Standard.	Interview/audition preferred, but required for provisional status students and music performance specialists. Music composition applicants must present a folio of five compositions for various media, both small and large forms. Music Education majors must have nine hours in education and one semester of teaching experience.
Philosophy and Religion	M.A., Ph.D.	All terms.	Standard.	<i>Philosophy</i> : Two letters of recommendation; GRE Aptitude and Advanced <i>Religious Studies</i> : Two letters of recommendation; GRE Aptitude recommended.
Physical Education				See the School of Education.
Physics	M.S., Ph.D.	All terms.	Standard.	Ph.D.: Two letters of recommendation unless previous degree earned in dept.
Psychology	M.A., Ph.D.	Fall only.	February 1 for clinical program; February 15 for experimental and social programs.	Admission to the doctoral program only, but M.A. may be earned also as part of Ph.D. program; two letters of recommendation; GRE Aptitude and Advanced required.
Sociology	M.A., Ph.D.	All terms.	Standard, but fall applicants advised to apply by April 15. Students applying for financial aid should submit admission and aid applications by February 1.	Three letters of recommendation for all students, including those previously enrolled in dept. Nondegree students taking courses in dept. should secure at least two of three recommendations from dept. faculty members. In addition to Univ. form, financial aid applicants must submit a dept. form (available from dept.).

Graduate Admission Requirements (Continued)

<i>Teaching Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Application Deadline</i>	<i>Additional Requirements</i> (Note: For specific grade-point averages and test scores, consult the individual program descriptions in this publication.)
School of Business Administration				
	M.B.A., M.S.	All terms.	Standard.	Two letters of recommendation from professors or employers; GMAT (formerly ATGSB) for all except Public Information Admin. majors, for whom GRE is required.
Washington College of Law				
	J.D.	Entering students: Fall only. Advanced students: All terms.	Entering students: March 15.	Baccalaureate degree from accredited college or university; LSAT; LSDAS.
College of Public Affairs				
Administration of Justice	M.S.	All terms.	Standard.	Two letters of recommendation; GRE Aptitude required.
Government and Public Administration, School of	M.A., M.P.A., Ph.D.	M.A., M.P.A.: All terms. Ph.D.: Fall only.	M.A., M.P.A.: Standard. Ph.D.: February 1.	Two letters of recommendation; preference given to full-time candidates for Ph.D. program; GRE Aptitude required for Ph.D. and for financial assistance.
International Service, School of	M.A., Ph.D.	M.A.: All terms. Ph.D.: Fall only.	M.A.: June 1 for fall, November 1 for spring, April 1 for summer. Students applying for financial aid should submit admission and aid applications by February 1.	Two letters of recommendation; GRE Aptitude; no direct admission to Ph.D. from B.A. level. Non-native speakers of English are required to take TOEFL in addition to GRE Aptitude. Admissions Committee takes cultural factors into consideration in making its decisions.
Technology and Administration	M.S.T.M.	All terms.	Standard.	

Graduate Admission Requirements (Continued)

<i>Teaching Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Application Deadline</i>	<i>Additional Requirements</i> (Note: For specific grade-point averages and test scores, consult the individual program descriptions in this publication.)
Special Programs				
Financial Management (Center for)	M.P.F.M.	Fall and spring semesters.	Standard.	Two letters of recommendation; GMAT scores; limited to students nominated by their respective federal or state agencies, counties or cities. Non-native speakers of English must take TOEFL.
Interdisciplinary Studies	M.A., M.S.			Graduate students must first be accepted into another program and may then transfer into an interdisciplinary studies program.

PROVISIONAL STANDING Each college, school, or department within the University may admit to provisional standing a limited number of students who do not meet the minimum standards of either the University or the teaching unit. By the end of one full semester of full-time study or by the first 12 semester hours of part-time study, the student will be evaluated by his college, school, or department. Continuation in the graduate program will be permitted upon favorable appraisal of the student's performance.

The provisional admission status of a graduate student who does not give satisfactory evidence of his capabilities will be cancelled.

CLEARANCE A student who has applied for admission to a degree program must clear his or her admission status before registering for a course. Students who have not received notification of status should inquire directly of the Office of Admissions, Financial Aid, and Veterans Affairs before attempting registration. A provisionally admitted student will be designated as such at the time of admission. (See above.)

Candidates for graduate degrees will be subject to those academic regulations in force at the time of their admission.

READMISSION FOR GRADUATE STUDENTS A request for continuation in the degree program may be granted once, for a period of three years, subject to the requirements of the particular degree in effect at the time of readmission, and may involve taking additional courses or other work or both. When a student is readmitted under these circumstances, the length of time that the student will be allowed to complete degree requirements and any additional courses, examinations, or other requirements, which are deemed necessary by the teaching unit, will be specified. Students applying for graduate readmission must pay a fee of \$20.

Any degree calling for additional prerequisite courses has the Statute of Limitations (see information given in Graduate Degree Requirements in this publication) extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

TRANSFER CREDIT

Credit from Other Institutions Credit may be considered for transfer from another regionally accredited institution at the time of admission to an American University graduate degree program, or at the time of advancement to candidacy, or at other specific times established by the individual departments.

Ordinarily, up to 6 semester hours of graduate credit may be transferred to be applied toward a master's degree program, and up to 30 semester hours of graduate credit may be transferred to be applied toward a doctoral program. However, only those courses completed with grades of A or B

will be considered for possible application toward the degree requirements, and all course work proposed for transfer will be approved or disapproved for credit by the individual department. In all cases students are required to meet the residency requirements established by the University and, in addition, any further residency requirements which may be stipulated for each program by the individual department. The student should refer to the section on University Residency Requirements and, in addition, consult the individual department for further details.

Nondegree to Degree Credit Students may enroll in nondegree status at The American University (see section on Admission to Nondegree Study). A student registered in nondegree status who later establishes eligibility for admission to graduate degree status may apply a total of not more than 12 semester hours of course work completed while in nondegree status toward meeting the requirements for a graduate degree. In order to be considered for admission to degree status at the graduate level, a nondegree student must have maintained a grade-point average of at least 3.00 (B) in all graduate level work attempted in nondegree status. However, only those courses completed with grades of A or B will be considered for possible application toward the degree requirements.

There can be no commitment that a nondegree student will be accepted into a degree program.

The student admitted to degree status ordinarily may not thereafter register as a nondegree student until he has successfully completed his degree requirements.

Admission to Nondegree Study

GENERAL The nondegree program of The American University enables students to pursue courses of study without first being accepted as candidates in either undergraduate or graduate degree programs. Through this program, the Division of Continuing Education (DCE) is able to meet a wide variety of educational needs of students who, for academic or other reasons, find it to their advantage to enroll in nondegree status.

A nondegree student may apply for admission to courses of his or her choice for which he or she has the necessary background and qualifications. Such courses may be taken for a letter grade, pass-fail, or may be audited.

A nondegree student begins the admissions process by contacting an academic advisor in the Division of Continuing Education and is required to have an advisor's stamp of approval before completing the registration process. The student must also secure the permission of the department chairman and/or appropriate faculty member to enroll in advanced graduate (600- or 700-level) courses and all independent reading courses.

Nondegree students are held to the same academic standards as degree students and are subject to dismissal as of the end of any session in which their cumulative grade point average falls below 2.00 (C).

ELIGIBILITY Enrollment as a nondegree student is open to persons (1) who have a high school diploma or an equivalency diploma based on the results of General Educational Development Tests (GED); (2) who are in good standing if currently enrolled in another collegiate institution; (3) who are high school seniors who have a B average and are recommended by a school counselor or principal; and (4) meet the prerequisites of the course or courses desired.

International students may register as nondegree students insofar as they abide by the regulations stipulated for nondegree international students in the section below on Admission for International Students.

Students currently enrolled as undergraduate or graduate degree students in any of the member institutions of the Consortium of Universities of the Metropolitan Washington Area may not register in nondegree status at The American University.

A student who is not in good standing or who has ever been dismissed from The American University or another college or university must make an appointment with an advisor in the Division of Continuing Education well in advance of registration to determine eligibility.

Once admitted to a degree program at The American University, a student ordinarily may not register in nondegree status until the degree program is completed.

ENROLLMENT A nondegree student ordinarily may not enroll in more than nine semester hours in any fall or spring semester. The student will be responsible for ensuring that his or her enrollment in nondegree status will not conflict with the allowable limits for the transfer of nondegree credit to degree status later (see below).

NONDEGREE TO DEGREE STATUS Undergraduate and graduate-level students who wish to change from nondegree to degree status must submit the appropriate application forms and all required supporting documents for degree admission to the Office of Admissions, Financial Aid, and Veterans Affairs. (See sections above for admission details.)

A nondegree student who is admitted to a degree program may use a limited number of semester hours taken in nondegree status to meet the requirements for a degree at The American University provided that the courses are appropriate to the degree sought. (See earlier sections for transfer credit details.)

Admission for International Students

The following regulations apply to all students who are not citizens of the United States of America, including students with permanent immigrant status.

ADMISSION PROCEDURES: DEGREE ADMISSION In addition to submitting the University's application for admission and meeting the requirements set forth in the application, all international students applying for admission as degree students must arrange to have official transcripts sent directly to the Office of International Admissions by all secondary schools and all colleges attended. These documents should be sent well in advance of the semester for which the applicant seeks admission. Personal student papers, photostats, or attested copies are not accepted for evaluation purposes. All international students whose native language is not English and who are applying for admission as undergraduate or graduate degree students must take the Test of English as a Foreign Language (TOEFL). Information regarding the procedure for taking this test may be obtained from TOEFL, Educational Testing Service, Princeton, New Jersey, 08540, U.S.A.

ADMISSIONS PROCEDURES: NONDEGREE ADMISSIONS All international students who wish to take courses as nondegree students must present to the Office of International Admissions evidence of their successful completion of high school (or its equivalent) and of courses taken in any colleges attended. Nondegree international students may use personal copies, photostats, or attested copies for counseling purposes. Nondegree international students who wish to become degree students must have official documents sent to the Office of International Admissions at the time when they apply for degree status.

ENGLISH LANGUAGE REQUIREMENT FOR REGISTRATION: DEGREE AND NONDEGREE All international students, whether degree or nondegree students, whose first language is not English are required to take an English proficiency test at the University before their first registration. Freshman international students will take a placement test in English. All other undergraduate international students, graduate international students, and nondegree international students must take an English waiver examination prior to their first registration at The American University. If an international student's command of English is insufficient to follow the program in which he or she wishes to enroll, he or she will be required to take one or more special courses in English as a second language.

VISA REQUIREMENTS The United States Department of Justice, Immigration and Naturalization Service regulations governing nonimmigrant F-1 students require international students in this category to pursue a full course of study while maintaining nonimmigrant student status.

In compliance with the provisions under which this institution has been classified as a training agency for international students, The American University requires all nonimmigrant F-1 students to pursue a full course of study each semester during the period of their enrollment.

Under this regulation, an undergraduate student will be required to register for at least 12 semester hours and a graduate student will be required to register for at least 9 semester hours of course work in a degree or certificate program. Any modification of these requirements resulting in nondegree study or a course load less than the above minimum requirements must be authorized by the International Student Advisor in consultation with the Director of International Admissions and the academic advisor.

Students who fail to observe the above requirements will not be eligible to receive a Certificate of Eligibility (Form I-20) and all other letters of certification in support of their continuation in nonimmigrant F-1 student status.

All students bearing nonimmigrant Foreign Student F-1 visas are required to attend, initially, the educational institution which issued the Certificate of Eligibility (Form I-20) utilized in obtaining the visa.

Students bearing nonimmigrant Foreign Student F-1 visas are reminded that transfer from one U.S.

educational institution to another must be authorized by the United States Immigration and Naturalization Service.

Students in the Exchange Visitor visa category (J-1) requesting transfer to the University's Private Exchange Visitor Program from another program number must obtain approval from the International Student Advisor before admission to the University becomes valid.

Questions concerning United States Immigration and Naturalization Service regulations should be directed to the International Student Advisor.

REGISTRATION PROCEDURES In addition to the normal registration instructions, the following regulations apply to all international students, degree or nondegree:

- (1) All nonimmigrant international students and students who do not possess full U.S. citizenship are required to obtain the signature of the International Student Advisor at the time of registration for courses.
- (2) New international students, whether degree or nondegree, may advance register provided that they have taken an English proficiency test required by the University.
- (3) International students may take courses in the University's extended-campus program, but they may not register at extended-campus centers; registration must be completed on campus.
- (4) All new international students are required to obtain the signature of the Director of International Admissions at the time of registration for courses.

ENGLISH LANGUAGE INSTITUTE International students wishing to enroll in the English Language Institute, either on a full-time or part-time basis, must have completed the equivalent of a U.S. high school education (12 years of schooling) or be at least 17 years of age at the time of enrollment. Students who are applying for admission to the English Language Institute for English only need not take the Test of English as a Foreign Language (TOEFL). After filing an application, students who are accepted will be sent a formal letter of acceptance and a Certificate of Eligibility (Form I-20) for a student visa if one is required. Admission to workshops or courses in the English Language Institute in no way implies eligibility for admission to any program or course of study in other divisions of The American University. See the English Language Institute section under the College of Arts and Sciences in this publication.

Information and course dates will be mailed upon request by writing or telephoning:

English Language Institute
College of Arts and Sciences
The American University
Washington, D.C. 20016, U.S.A.
Telephone: (202) 686-2197



Tuition, Expenses, and Financial Aid

Beginning in the Fall 1978 semester, The American University is shifting from a course unit credit to a semester hour credit system (see Undergraduate Degree Requirements under General Academic Regulations and Procedures for details). Accordingly, in Fall 1978, undergraduate students who register for 12 to 17 semester hours will be assessed at a full-time tuition rate. Undergraduate students who register for fewer than 12 semester hours will be assessed tuition based on the specific number of semester hours taken. Undergraduate students who register for more than 17 semester hours will be assessed the full-time tuition rate with an added tuition charge for each semester hour in excess thereof.

Undergraduate students registered for 12 to 17 semester hours, for courses offered at extended-campus locations, will be assessed a full-time tuition rate. Students who register for fewer than 12 semester hours will be assessed a per semester hour tuition charge. Students who register for more than 17 semester hours will be assessed the full-time tuition rate with an added tuition charge for each semester hour in excess thereof. The extended-campus tuition rate will differ from the full-time rate for on-campus courses.

Undergraduate students registered for 12 to 17 semester hours who are taking both extended-campus program courses and on-campus courses are to be assessed at the on-campus full-time tuition rate.

Graduate students and nondegree students will be assessed at a per semester hour tuition rate.

Full-time Washington College of Law students will be assessed at a full-time tuition rate. Part-time Washington College of Law students will be charged at the per semester hour tuition rate.

The tuition costs shown below are for the 1977-78 academic year. Given probable continuation of current economic conditions, as well as the need to continue and accelerate the academic development of the University, it can be reasonably expected that tuition and fee increases will be required for each foreseeable year beyond 1977-78. The University will attempt, however, to limit tuition and fee increases to reasonable levels. For the most current information on costs, the *Schedule of Classes* for each semester should be consulted.

Tuition and General Fees, 1977-1978

Tuition

Charges per semester are as follows:

Undergraduate Students.....	\$ 405	each course unit
(In 1977-78, four course units constitutes a normal full-time undergraduate program.)		
Graduate Students.....	\$ 114	each semester hour
	or \$ 342	each course unit
Nondegree Students.....	\$ 108	each semester hour
	or \$ 324	each course unit

Law Students

Full-time	\$1,625	each semester
Part-time	\$ 121	each semester hour
Extended-Campus Programs	\$ 243	each course unit
	or \$ 81	each semester hour

Auditors pay the same charges as students enrolled for credit and are subject to all applicable special fees listed below.

INSTITUTES

Charges for institutes and other special courses may be found listed under their respective departments and schools in the *Schedule of Classes* published for each academic term.

RESIDENCE HALL AND BOARD CHARGES

Room Charge: Double Occupancy	\$ 518	each semester
Triple Occupancy	\$ 350	each semester
Residence Hall Association Fee	\$ 2	each semester
(Optional: Will be waived only upon submission of waiver form to the Office of Residential Life before the end of the first week of classes. Once paid this fee is nonrefundable.)		
Board Charges: 10 meals per week contract	\$ 302	each semester
15 meals per week contract	\$ 347	each semester
19 meals per week contract*	\$ 439	each semester
* Contingent on the number of application requests received for this plan.		

SPECIAL FEES

These fees are nonrefundable. The charges listed below are not included in tuition and general fees.

Special course and laboratory fees (See these courses as listed under their respective departments and schools in the *Schedule of Classes* published for each academic term.)

Admission Application Fee	\$ 20	each
Readmission Fee	\$ 20	each
Deferred Payment Plan Fee	\$ 7	each
Student Confederation Fee	\$ 27	each semester
(Mandatory for full-time undergraduate students.)		
Late Registration Fee	\$ 15	each
(Effective the first day of the term.)		
Late Payment of Financial Obligations Fee	\$ 10	each
Reinstatement Fee	\$ 25	each
Returned Check Fee	\$ 5	each
(For personal checks not honored by the bank.)		
Motor Vehicle Registration Fee	\$ 40	each semester
Faculty/Staff Motor Vehicle Registration Fee	\$ 100	each year
Health Fee	\$ 20	each semester
(Not charged separately to full-time undergraduate students; required of all others who wish to use infirmary facilities.)		
Law School General Fee	\$ 20	each semester
Admission Testing Fee	\$ 5	each test
Official Transcripts Fee	\$ 2	each transcript
Student Picture I.D. Card Replacement Fee	\$ 2	each

GRADUATE STUDENT FEES

The following charges are applicable to graduate students only.

Graduate Student Council Fee	\$ 2	each semester
(Mandatory for all graduate students, full-time and part-time.)		
Maintaining Matriculation Fee	\$ 55	each academic year
(See description in Graduate Degree Requirements section under General Academic Information and Regulations in this publication.)		
Comprehensive Examinations (with each application):		
Master's and Doctoral	\$ 20	each examination

Additional Fee if In Absentia			
Master's		\$ 100	each
Doctoral		\$ 200	each
Microfilming of Dissertation, Thesis, or Case Study			
Master's Thesis or Case Study		\$ 25	each
Doctoral Dissertation		\$ 35	each

GRADUATION FEES

Graduation Application Fee		\$ 12	each
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Rental charges for academic attire used during the spring commencement ceremonies are announced in March.

ADVANCE REGISTRATION Students participating in advance registration must pay the balance due on or before the due date as indicated on the bill sent from the Office of Student Accounts. Accounts not paid when due will be subject to a late payment fee of \$10, and such accounts also may be placed automatically on the University deferred payment plan.

DEFERRED PAYMENT PLAN Students (those who advance register and those who participate in direct or general registration) whose total bill exceeds \$425 after deducting all forms of tuition assistance, may elect the deferred payment plan. Under this plan, the student pays $\frac{1}{2}$ the amount owed by the due date, and the remaining balance, approximately seven weeks later, by the date shown in the academic calendar in the *Schedule of Classes* published for that term. Students who fail to make payments when due will be subject to the \$10 late payment fee. The charge for the University deferred payment plan is \$7 each semester (not refundable). Students who are under this plan are responsible for making any subsequent payments in full at the Office of Student Accounts on or before the due date.

LATE PAYMENTS AND FINANCIAL STOPS A late fee of \$10 may be assessed against a student's account each time a payment is not made when due. In addition, failure to make payment when due may result in a financial "stop" being placed on a student's account. The financial "stop" may in turn result in a "hold" being placed on the student's academic records, including transcript and diploma, and may result also in denial of advance registration, and use of the deferred payment plan or other credit privileges. Financial "stops" may be removed following assessment and payment of a \$25 reinstatement fee. A student who has once had a financial stop placed against his account may be denied future advance registration and deferred plan privileges even though the student has been reinstated upon payment of the reinstatement fee. *Repeated failure to make payments when due may result in prompt severance of the student's relationship with the University.*

EMPLOYER OR AGENCY TUITION ASSISTANCE A student requesting employer or agency billing arrangements must furnish the Office of Student Accounts with a valid contract or purchase order at the time of registration. A contract must contain the following information: (1) student name and social security number, (2) term of attendance, (3) specific costs and amounts to be paid by the sponsor (tuition, books, supplies, and fees), (4) sponsor's billing address, and (5) purchase order number or accounting appropriation, if applicable. Documentation submitted in lieu of a valid purchase order WILL NOT relieve a student of financial responsibility.

In cases of partial assistance, a student is required to pay the balance of his or her tuition costs at the time of registration. Student portions which qualify for the University deferred payment plan are to be paid by the deferred due date. Failure to comply will result in the assessment of a late payment fee. See Late Payment and Financial Stop information above.

Bookstore credit is authorized through the Office of Student Accounts when a book or supply allotment is itemized on the contract. Bookstore purchases are permitted through conclusion of the add/drop period. (For special extensions, consult the bookstore personnel.)

A student's responsibility for payment includes amounts billed which are disallowed by his or her sponsor.

EMPLOYEE TUITION BENEFITS Only full-time permanent faculty or staff employees are eligible for University employee tuition benefits.

Application for faculty, staff, and spouse benefits are available at all academic and administrative offices. The completed application should be submitted to the Office of Staff Personnel Services, Cassell Center, second floor, no later than one week prior to general registration.

Tuition benefits forms for children of faculty or staff employees are available at the Office of Staff Personnel Services.

TUITION CANCELLATION The appropriate forms, available in the office of the deans and in the Office of the Registrar, must be completed to officially withdraw or reduce course load. The amount of tuition to be cancelled will be calculated as of the date on which the withdrawal forms are received at the Office of the Registrar and in accordance with the tuition cancellation schedule in the *Schedule of Classes*.

Complete withdrawal from the University during the first week of classes will result in full cancellation of tuition charges less \$25, provided the withdrawal form is received in the Office of the Registrar and dated prior to or during the first week of classes.

A full cancellation of tuition will also pertain to any individual course dropped within the first week of the classes.

Course drops which result in a course load reduction during or prior to the first four weeks are subject to the percentage cancellation schedule published in the *Schedule of Classes* for the applicable semester.

Discontinuance of attendance at class or notification to the instructor **does not constitute an official withdrawal**. Students who do not officially withdraw during the cancellation period will be responsible for payment of the full amount of the applicable tuition and fees.

Requests for cancellation of room charges must be made through the Office of Residential Life.

Requests for cancellation of meal booklets must be processed through the Food Service Office.

TUITION REFUND Students who reduce their course load or who withdraw completely during the first four weeks of the semester will be entitled to a prorated refund for that portion of the course load reduction according to the tuition cancellation schedule in the *Schedule of Classes*. Requests for refunds are to be made to the Office of Student Accounts.

Financial Aid

Both undergraduate and graduate student applications for financial aid should be requested from and submitted to the Office of Admission, Financial Aid, and Veterans Affairs, which is located in the Asbury Building.

UNDERGRADUATE STUDENTS The American University has a varied program of financial aid for undergraduate students including transfer students. Scholarships, low interest long term loans, part-time employment, or any combination of these resources may be applied for. The University participates in all the federal aid programs for which it is eligible, including National Direct Student Loans (NDSL), Nursing Loans and Scholarships, Law Enforcement Education Program loans and grants (LEEP; contact the Center for the Administration of Justice in the College of Public Affairs), Supplemental Educational Opportunity Grants (SEOG), Basic Educational Opportunity Grants (BEOG), Guaranteed Student Loans (state loans), and the College Work-Study Program.

Entering freshmen and transfer students are eligible to apply for scholarships. The award is based on financial need and academic achievement. Federally financed programs are awarded on the basis of need, and students must plan to be enrolled at least half-time to be considered.

In addition to the University Application for Financial Aid, a Parent's Confidential Statement or Financial Aid Form must be filed by all applicants.

Applications and supporting credentials for all types of financial aid must be filed by November 1 for the spring semester only, April 1 for the fall semester only, and April 1 for the fall-spring academic year. Scholarships are awarded for the academic year but not normally for the summer sessions. A separate application is required for each academic term.

GRADUATE STUDENTS The University maintains a program of fellowships, graduate assistantships and graduate scholarships to support graduate students in programs of full-time study. These honor awards are made on the basis of academic merit. Financial need may be a secondary criterion. Special Opportunity Grants for Minority Students (Black American, Hispanic American, Asian or Pacific Islander American, American Indian, or Alaskan Native American) parallel the regular graduate honor awards and take the form of assistantships and scholarships. Honor award applications must be submitted to the Office of Financial Aid by February 1 for awards to commence the following academic year.

Graduate students may also apply for National Direct Student Loans (NDSL) and for college work-study by submitting the University's application for financial aid by April 1.

EMPLOYMENT Many students also earn a portion of their college expenses through part-time employment on the campus or in the Washington community. Inquiries concerning employment other than the college work-study program should be addressed to the Career Development Center in Mary Graydon Center. First priority for jobs for students seeking campus employment will be given to those demonstrating a financial need.

COOPERATIVE EDUCATION PROGRAM The Cooperative Education Program is designed to integrate experience with academic study. Students enrolled in this program may usually earn academic credit toward their degrees through employment in full-time work assignments related to their educational and career interests and supervised by University faculty. Federal Work-Study Program funds may be used to supplement salaries of those students eligible for financial aid on the basis of the Parents' Confidential Statement or the Financial Aid Form. For eligibility and other information see the separate "Cooperative Education Program" section in this publication.

Veterans Benefits

The American University is approved by the Veterans Administration (VA) for enrollment of veterans and dependents of deceased or disabled veterans eligible for educational benefits under the various public laws relating to veterans which have been passed by the Congress of the United States.

NEW STUDENTS New students entering The American University must file Veterans Application for VA Educational Benefits (22-1990) with a copy of DD-214 through the Office of Veterans Affairs in the Office of Admissions, Financial Aid, and Veterans Affairs. Enrollment certification is then sent to the Veterans Administration by the Office of Veterans Affairs to institute benefits for the enrollment period.

Service men and women wishing to receive VA benefits for the first time must present the Service-man's Application for VA Educational Benefits (22-1990a). This form must be signed by the Education Office and the Commanding Officer.

Transfer students who have received VA educational benefits at another place of training or college, but wish to receive VA benefits for the first time at The American University, should file a Request for Change of Program or Place of Training (21e-1995) through the Office of Veterans Affairs. This is then sent to the VA's Regional Office in Washington, D.C., with the Enrollment Certification (22-1999).

CONTINUING STUDENTS Continuing students need only file The American University VA claim card for educational benefits each semester thereafter. This request for educational benefits must be filed each semester with the Office of Veterans Affairs. Any and all changes in registration (adds, drops, and/or withdrawals) must be reported to the Veterans Affairs Office.

PAYMENT AND FINANCIAL RESPONSIBILITY With the exception of disabled veterans who are training under Vocational Rehabilitation, all beneficiaries of educational benefits from the VA are personally responsible for the payment of their bills to the University. These persons should come to the University financially prepared to pay tuition and fees. The VA checks for educational benefits are sent directly to the student or address designated on The American University claim card. Students who wish to receive advance payment must file an advance payment request form. Those students who request and are granted advance payment pick up only the first check issued through the Office of Veterans Affairs. Thereafter, the checks are sent directly to the student or address on file with the VA. Normally, it takes six to eight weeks from the time of filing a veterans semester claim card with the Office of Veterans Affairs before the first check arrives. Veterans whose claim cards are completely filled in will have their claims processed first. Incomplete claim cards (e.g., no file/claim number, etc.) will be processed last.

Students receiving Veterans Administration benefits should know that the Veterans Administration requires regular class attendance. "Unsatisfactory progress" toward the pursuit of a veteran's stated educational goals is defined by the Veterans Administration as, withdrawal, termination, or noncompletion of two or more unit subjects in any given term, session, or semester. Such withdrawal, termination, or noncompletion of any subject during any semester is considered an overpayment by the Veterans Administration. The effective date of such overpayment is the first day of classes of the semester unless the veteran shows mitigating circumstances to the Veterans Administration.

The Office of Veterans Affairs is located on the first floor of the Asbury Building. The office is open from 9:00 am to 5:00 pm, Monday through Friday. For further information or appointments before 9:00 am or after 5:00 pm, please phone (202) 686-2074.



Student Life and Services

Division of Student Life

The Division of Student Life offers a program of services to students and faculty which complements and assists the University's formal academic programs. These services are provided by the Career Development Center, Counseling Center, Office of Student Program Development, Center for Campus Ministries, Health Center, International Student and Faculty Exchange Office, and Residential Life Office. Dining services are coordinated through this division.

CAREER DEVELOPMENT CENTER The center assists students and graduates of the University with all phases of their career development, from choosing a major and finding a part-time job to planning long-range career goals and obtaining full-time work after graduation. The six-week Life/Career Planning and Career Search Seminars teach participants how to identify their skills and interests, clarify their career goals, and gather relevant information for career planning and job-seeking in an assertive, self-directed way. A variety of two-hour workshops offer information and strategies on topics such as Graduate and Professional School Exploration, Resume Writing, and the D.C./Federal Government Job Marketplace. A Schedule of Activities, listing all seminar and workshop programs for the year, is available from the center's office, Mary Graydon Center.

Students in need of part-time, temporary, or summer jobs find information and assistance available through the Experiential Learning Service which lists over 2,400 jobs, internships, and volunteer opportunities in the metropolitan Washington area, as well as a limited number of on-campus jobs. Students who qualify for the Federal Work-Study Program also receive placement assistance from the center.

Graduating students and alumni seeking career employment can learn about immediate full-time job openings from the center's weekly career job referral bulletin. They can also interview with representatives of numerous business, government and educational organizations seeking career employees through the On-Campus Recruitment Program. A Credentials Referral Service is also provided for teaching candidates, graduate school applicants, and others who may have need for referral of their reference letters in their job search.

The Career Development Center maintains a comprehensive Career Resource Center, which contains descriptive literature on business, government, and nonprofit organizations; files of occupational information; and over 200 reference texts, periodicals and special hand-outs on career decision making, academic and career planning, and job seeking.

COUNSELING CENTER The aim of the University Counseling Center is to assist students to better understand themselves, to deal more effectively with important decisions, and to resolve problems. An extensive program of professional psychological services is provided.

Counseling is offered on an individual or group basis depending on which is more suitable. Help is available in vocational or educational planning and in resolving problems of a personal or social nature. In addition, there are a number of growth groups to enhance personal development. Other

services include a variety of testing programs, and a reading and study skills laboratory to improve educational skills.

Full-time students are not charged for Counseling Center services. All contacts are confidential.

THE INTERNATIONAL STUDENT AND FACULTY EXCHANGE This office provides specialized guidance and services designed to meet the needs of international (foreign) students. These services include the issuance of United States immigration documents, assistance with financial, personal, social, academic, visa matters, and referral. The office also coordinates United States and foreign faculty exchange, provides initial guidance on study abroad, and academic credit internships for selected graduate and undergraduate students.

The director of the exchange also serves as the American Indian advisor providing guidance and liaison in personal, financial, social, academic, and vocational matters. Other services include assistance in utilizing local, national, and tribal organizations as sources of financial assistance and academic credit internships. Relationships with local Indian communities are also arranged.

CENTER FOR CAMPUS MINISTRIES Chaplains at The American University Center for Campus Ministries see their ministry to the campus in a broad context. Representing a wide variety of denominations and faith groups, they attempt not only to provide traditional chaplains' services of worship and personal counseling, but also to work in concert with other campus groups in making the University more responsive to the human needs of its members.

The Abraham S. Kay Spiritual Life Center houses the Center for Campus Ministries, including the offices of the chaplains, the chapel, a lounge, a Christian Science Reading Room, and meeting rooms. Protestant, Catholic, Jewish, Christian Science, and Muslim services are regularly scheduled here, as are other campus functions of various kinds. Worship tends to be both contemporary in style and involved with the life of the campus and the world. The Buddhist chaplain conducts regular meditation sessions.

There is an open and welcome atmosphere at the center, where students feel free to come and talk with one another or with a chaplain about problems or plans or ideas. There is opportunity to work in a democratic way with others of different religious backgrounds. To be involved here is to add significantly to the meaning of one's experience at the University.

Worship Services Each week during the fall and spring semesters (except during academic holidays) worship services are held at the Kay Spiritual Life Center.

STUDENT HEALTH CENTER The Student Health Center has a medical staff of two part-time physicians and an orthopedist consultant. The student can be referred to other consultants of various specialties, such as dermatology, dentistry, etc. A nursing staff of three nurse-practitioners and one registered nurse provides dispensary services during the day, weekdays, and Saturday mornings throughout the regular academic year to full-time undergraduate students and to other full-time students who pay a health fee of \$20 per semester.

Since there are no facilities for bed patients on campus, medical treatment is available at the student's expense at Sibley Memorial Hospital (or at another hospital of the student's choice) for serious illness or accidents occurring during the hours the dispensary is closed.

New full-time undergraduate students must report before registration (on a form supplied with their admission notice from the Office of Admissions, Financial Aid, and Veterans Affairs) the results of a physical examination by a physician of their choice. A student who does not have a full medical report on file is ineligible to receive any health service other than emergency treatment.

The Student Health Center is available to all full-time undergraduate students for diagnostic purposes and the care of minor illnesses only. The infirmary has no facilities for bed patients. Students whose health problems are more complex are referred to nearby Sibley Memorial Hospital or another hospital of their choice for treatment at the student's expense.

Dispensary Hours:	8:00 am to 5:30 pm, Monday through Friday 10:00 am to 1:30 pm, Saturdays
Doctors' Center Hours:	9:30 am to 12:30 pm, Monday through Friday
Holiday Hours:	Special hours are posted in advance.

Student Health Insurance Plan All full-time students may elect to participate in the Student Health Insurance Plan. Detailed information concerning this plan is available in the Student Health Center, McDowell Hall, and the Student Life Office, Mary Graydon Center. Annual renewal must be initiated by each student before the fall deadline. Payment is made directly to the insurance company.

RESIDENCE HALLS Space in University residence halls is available to full-time undergraduate

students of The American University. The residence hall lease is binding for a full academic year (fall and spring semesters). The room rates are listed under the "Tuition, Expenses, and Financial Aid" section of this publication. For details on residence hall procedures and policies, as well as other services, please write to the Director of Residential Life.

Room Reservations Requests for information should be addressed to: Office of Residential Life, The American University, Washington, D.C., 20016.

A nonrefundable \$100 room reservation deposit will be collected each year when availability of space for the student is confirmed.

Resident students must observe all regulations specified in the contract which they (and their parents, if students are under 18) sign, as well as University regulations. They will be held responsible for damage to their rooms during their period of occupancy, and will be billed, either individually or with roommates, for damages.

Refund of Housing Payment A schedule of refunds for those withdrawing from the University during the semester will be announced and will thereafter be available in the Residential Life Office. Refunds may not be made to students moving off campus before completion of their contractual obligation.

Room Furnishings Each room contains a bed, chest, desk, chair, and closet space for each resident. Electrical equipment brought by the students is limited to small appliances such as clocks, radios, and irons. Individual cooking equipment such as broilers and fry pans cannot be used in the rooms. There are limited kitchen facilities in the residence halls.

Linen Service An optional linen service is available to residents. Arrangements for the service can be made after the student receives his housing assignment.

DINING SERVICES There is a cafeteria, snack bar, a la carte dining room, formal dining room, and tavern in Mary Graydon Center. The snack bar and tavern are open seven days a week except for holidays. Meal contracts are available, beginning with the first day of general registration and ending on the last day of classes (excluding vacations). Resident students are urged to buy meal contracts which are more economical than paying for each meal separately. The Food Service Department is willing to assist students in working out dietary and schedule problems. Refunds cannot be made after the first week of classes in each semester.

Other Services

BANKING FACILITIES The University operates no student banking facilities. However, a number of banks offering the necessary services are located within walking distance of the campus.

OFFICE OF STUDENT ACCOUNTS Following admission to the University, students handle all financial transactions with the University through the Office of Student Accounts located in Cassell Center.

CAMPUS BOOKSTORE The campus bookstore carries all required textbooks, a large selection of nonrequired books, all necessary paper supplies and stationary, college sportswear, college jewelry and gifts, magazines, newspapers, film, and toiletry items.

MAIL SERVICE The University maintains a United States Post Office contract sub-station on the campus. Mail boxes are available at the Post Office for international students who reside off-campus. Mail boxes in each dormitory are furnished to resident students without charge.

Post Office hours are as follows:

Purchase of Stamps: 9:30 am to 4:00 pm, Monday through Friday

Parcel Pick-Up: 10:00 am to 5:00 pm, Monday through Friday
10:00 am to 12:00 pm, Saturday

Student Activities

MARY GRAYDON CENTER Mary Graydon Center houses the University dining facilities, offices of various student organizations, and the administrative and service departments of the Division of Student Life, as well as the School of Communication, the Computation Center, and the University Senate office. The Service Information Center, located in the lobby of the Mary Graydon Center, acts

as the main desk for the University. Staffed by students, it is an excellent place to direct any questions that you might have, pick up the calendar of events, or bus and travel information.

STUDENT PROGRAM DEVELOPMENT OFFICE The Student Program Development Office assists both student groups and individual students in the facilitation of learning and personal growth beyond the classroom. The staff members specialize in activities counseling, advising and coordination of organizations, providing leadership training, and personal development programs. Students, in conjunction with the office staff, work together in developing programs related to student life.

STUDENT CONFEDERATION The Student Confederation is designed to be a University-wide undergraduate student government which represents the academic, social, and community interests of the student body. Membership consists of full-time undergraduate students who pay the required activities fee. One of the units of the Student Confederation is the Student Union Board. It establishes and executes projects and programs relating to social and community affairs. It is composed of a Board with various departments under its jurisdiction: Community Affairs, Social Activities, Student Health and Welfare, Student Affairs, and Union Operations.

Other student government groups are: Residence Hall Association, Interfraternity Council, Panhellenic Council, Interclub Council, Judicial System, All-Kay Community, the Social Action Council, and OASATAU (Organization of Afro-American Students at The American University).

GRADUATE STUDENT COUNCIL The Graduate Student Council serves as the advocate for graduate students at The American University, with representation on all policy-making bodies including academic policy boards. The council, composed of representatives from the schools and departments within the University, also sponsors social activities and participates in planning for new student orientation.

JUDICIAL SYSTEM The Judicial System, based on the fundamentals of due process, is designed for the hearing and resolving of complaints against students and student groups. Underlying the entire program is a deep regard for discipline as a constructive element in education.

ALL KAY COMMUNITY The All-Kay Community coordinates the activities of the various religious groups and plans general religious activities.

SOCIAL ACTION COUNCIL The Social Action Council is dedicated to education, participation, and change. Focusing upon the problems of the city, SAC sponsors campus-wide training programs and speakers on urban affairs. SAC is involved in such projects as the Washington Area Study Project, D.C. General Hospital Program, Tutoring Program, service fraternities, a mental health program, and the Organization of Afro-American Students at The American University (OASATAU).

ATHLETIC PROGRAM There is intercollegiate competition for men in baseball, basketball, cross-country, golf, soccer, swimming, tennis, track, and wrestling. The American University is a member of the National Collegiate Athletic Association and the Middle Atlantic Collegiate Athletic Conference. In addition, the Student Confederation sponsors teams in rugby, hockey, bowling, kung fu, sailing, and skiing. In 1973, The American University's basketball team was invited to the National Invitational Tournament in New York. Basketball star Kermit Washington was named All-American and Academic All-American.

Women have intercollegiate teams in basketball, field hockey, swimming, tennis, and volleyball. Intramurals for men and women include badminton, basketball, billiards, bowling, touch football, golf, gym floor hockey, softball, swimming, table tennis, tennis, tug-o-war, track, volleyball, and wrestling.

DEBATE The intercollegiate forensics program is coordinated by the Hurst R. Anderson Forensic Society. Members of the society participate in an extensive schedule of intercollegiate events including debate tournaments and contests in individual events.

DRAMA The American University Players and the A.U. Black Cultural Society for the Performing Arts present several classic and contemporary productions throughout the year and also schedule play readings, one-act plays, and dramatic television productions.

MUSIC Musical groups on campus include The American University Chorale, The American University Orchestra, The American University Singers, and The American University Academy for the Performing Arts. The American University Singers schedule concert tours in addition to their campus programs. Qualified students may register in these musical organizations for credit.

POLITICAL ORGANIZATIONS There are many political organizations on campus which encourage participation in local and national political campaigns and sponsor lectures by members of Congress, journalists, and representatives of different political parties. Recent organizations have included

College Democrats, College Republicans, Students for a Democratic Society, and Young Socialist Alliance.

PROFESSIONAL, SCHOLARLY, AND HONORARY SOCIETIES At The American University, students can strive for election to both professional and service honoraries. The American University Chapter of the National Honor Society of Phi Kappa Phi was chartered in 1964. Professional honoraries are established in the fields of biology, chemistry, debate, dramatics, education, German language, graduate work, history, journalism, leadership, marketing, mathematics, music, political science, speech arts, and transportation. The service honoraries are Omicron Delta Kappa (men), and Mortar Board.

PUBLICATIONS AND BROADCASTING Students publish two weekly newspapers, *The Eagle* and *UHURU*; a literary magazine, *The American*; and a yearbook, *The Talon*. The student radio station WAMU-AM and the University station WAMU-FM broadcast daily. Other student publications include *The Jewish Pickle*, *Diplomatic Pouch*, and *Matrix*.

SERVICE ORGANIZATIONS There are four service organizations whose University chapters are nationally affiliated. Alpha Phi Omega and Omicron Kappa for college men provide wide fellowship programs with many leadership and service opportunities. The women's service sorority, Gamma Sigma Sigma, performs a variety of services for the University and community, including assistance in the settlement houses in the Washington area. Phi Gamma Delta, a professional graduate women's honorary, focuses on career opportunities for women.

SOCIAL ORGANIZATIONS The University currently has chapters of ten nationally affiliated sororities and fraternities. The six sororities on campus are Alpha Chi Omega, Alpha Epsilon Phi, Delta Gamma, Phi Mu, Alpha Kappa Alpha, and Delta Sigma Theta. The fraternities are: Alpha Epsilon Pi, Alpha Tau Omega, Alpha Sigma Phi, and Phi Sigma Kappa.



General Academic Regulations and Procedures

DEGREE REQUIREMENTS (General, Undergraduate, Graduate)

GRADING SYSTEM AND RECORDS

REGISTRATION

GENERAL CURRICULUM INFORMATION

CONFIDENTIALITY OF STUDENT RECORDS

GENERAL INFORMATION

As part of the process of providing a high quality of educational experience for the student, the University is undergoing a revision of its academic requirements. As a result, the information contained in this and other sections of this publication may be revised. Students are advised to contact their deans or department chairmen to ascertain what new requirements may pertain to their individual programs of study.

Degree Requirements

General Degree Requirements

STATUTE OF LIMITATIONS It is University policy that no student shall be involuntarily subject to regulations and academic requirements introduced while he remains continuously enrolled and in good standing in the degree program which he originally selected, if the new regulations involve undue hardships or the loss of academic credits earned to satisfy the requirements previously in effect. The following regulations are, however, in effect:

- (1) An undergraduate who ceases to attend the University for a period of one semester, whether voluntarily or not, is subject to all the regulations and must meet all the requirements in force at the time that he resumes his studies unless other arrangements have been agreed to by his dean, and recorded in writing prior to the beginning of his absence.
- (2) A graduate student who fails to register in the fall semester (either for courses, for maintaining matriculation, or for comprehensive examinations) will be considered as having withdrawn. Such a student could then reapply, and if readmitted, would be governed by requirements and regulations in effect at the time of readmission.
- (3) A student who changes his degree objective or his college or school, whose candidacy for an advanced degree expires, or who elects to conform to regulations or requirements instituted while he is enrolled, must be prepared to complete all of the requirements and abide by all regulations in effect at the time he makes the change.
- (4) Candidacy for a master's degree expires no later than three years after the date of first enrollment in the degree program. Candidacy for a doctoral degree expires no later than five years after the date of first enrollment in the doctoral program. However, the doctoral student is permitted seven years if he enters a doctoral program directly from a bachelor's degree. A student may petition

for an extension of candidacy in a degree program for a limited period if such extension is sought prior to the expiration of these specified time limits. If, however, the time limit has expired, a student wishing to resume his work may seek readmission to the University once for a period of no more than three years. Readmission for resumption of an advanced degree program may involve the completion of additional courses or other appropriate work. Any degree calling for additional undergraduate prerequisite courses has the statute of limitations extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

Other than as stated above, the University has no strict regulations with respect to the total amount of time in which a student may fulfill the requirements for a degree, provided that he maintains the appropriate grade point average and gives evidence of being seriously interested in the eventual achievement of his academic objective.

The University is liberal in accepting credit earned in the past. Nonetheless, a student who has not been engaged in formal study for a number of years or whose study has been intermittent, at The American University of elsewhere, must understand that he will not necessarily receive full credit for work he has completed previously simply because it is a matter of record. This applies to undergraduate students as well as to graduate students.

COMPLETION OF DEGREE REQUIREMENTS AND COMMENCEMENT The University confers degrees and issues diplomas at the end of the fall (December graduation), spring (May graduation) and summer (August graduation) terms. Formal commencement ceremonies are held only in January or February (for students earning degrees in August and December) and in May (for students earning degrees in May).

Application for Graduation Candidates for degrees are to file an Application for Graduation Form in the degree clearance section of the Office of the Registrar no later than the date listed below for the particular graduation:

<i>Graduation</i>	<i>Application Deadline</i>
August 1978	April 1, 1978
December 1978	June 1, 1978
May 1979	September 15, 1978

All students are urged to consult the academic calendar published in the Schedule of Classes for each term. Graduate students are advised to consult the more detailed information about comprehensive examinations, thesis and dissertation deadlines, etc., available from academic offices and included in the academic calendar in the Schedule of Classes.

Effective with the August 1977 graduation, students pay a \$12 graduation fee.

Certification of Students for Graduation Only after application for graduation has been made can the Office of the Registrar begin processing the necessary information for final certification for graduation. Students who fail to complete all their requirements by the end of the term for which they applied to graduate must reapply for graduation at a later date.

Undergraduate Degree Requirements

Effective with the fall 1978 semester, the undergraduate curriculum of The American University is changed from a course unit system requiring a minimum of 32 course units for the bachelor's degree and 16 course units for the associate degree to a semester hour system requiring a minimum of 120 semester hours for the bachelor's degree and 60 semester hours for the associate's degree.

GUIDELINES FOR CONTINUING STUDENTS The following equivalency table is a guide for undergraduate students enrolled in both the course unit and semester hour systems:

<i>Course Units Earned</i>	<i>Semester Hours to be Completed</i>
8	90
16	60
24	30

In addition, undergraduate students enrolled under the course unit system and continuing under the semester hour system may calculate their standing by multiplying the number of course units earned by 3.75.

Credit that has been transferred from other institutions to The American University through summer 1978 has been converted to course units according to the scale published in previous catalogs.

1 hr 1/4	2 hrs 1/2	3 hrs 3/4	4 hrs 1	5 hrs 1 1/4	6 hrs 1 1/2	7 hrs 2	8 hrs 2 1/4
9 hrs 2 1/2	10 hrs 2 3/4	11 hrs 3	12 hrs 3 1/4	13 hrs 3 1/2	14 hrs 3 3/4	15 hrs 4	

Those original conversions to the course unit system will stand, and transfer credit will be calculated as course units in the equation noted above.

The Office of the Registrar has the authority for determining all conversions, and, during the summer of 1978, will notify all continuing undergraduate students and nondegree students without college degrees of the number of equivalent semester hours earned. Such information will also be posted to students' permanent records.

Major Distributive and Related Requirements for Continuing Students For continuing students, the same courses that satisfied requirements under the course unit system should be used for the satisfaction of requirements under the semester hour system. When a required course has substantially changed in value or content, the teaching unit may change requirements for continuing students. (However, when a required course is so changed, and if a student took that course under the course unit system, the student cannot be required to repeat that course.) For continuing students, the number of semester hours needed to fulfill major, distributive, or related requirements shall not exceed 3.75 times the total number of course units previously required for those categories.

MAJOR DISTRIBUTIVE AND RELATED REQUIREMENTS Undergraduate students admitted (or readmitted) for the Fall 1978 term shall be governed by the following minimum requirements for the undergraduate degree (it being understood that each teaching unit may have further major and major-related requirements):

Semester Hour Requirement 120 semester hours are required for the bachelor's degree; 60 semester hours for the associate's degree.

Major Requirement Each undergraduate must complete a minimum of 36 semester hours in the major field (no fewer than 15 of which must be earned at The American University).

Residency Requirement Each undergraduate student must complete 30 semester hours of the last 60 semester hours required for the degree in residence at The American University. The 30 semester hours must be earned after the student has enrolled as a degree student; semester hours earned by a student who has not enrolled as a degree student do not apply toward the requirement.

English Requirement Each undergraduate must complete six semester hours to satisfy the English requirement. Courses designed to fulfill this requirement are English Composition and Reading I and II or special Department of Literature freshman seminars. These courses are not equivalent courses; i.e., enrollment in one course would not make enrollment in another redundant: they are, rather, alternative courses in the sense that satisfactory performance will certify the student's writing ability. Any two of these courses (six semester hours) will serve to satisfy the University English requirement. On the basis of tests and records the University may permit undergraduates to waive all or part of the University English requirement.

Distribution Requirement Each undergraduate student is required to complete a minimum of six semester hours in each of three following curriculum fields (a) Natural and Mathematical Sciences (N), (b) Social Sciences (S), (c) Arts and Humanities (A), plus a total of six or more semester hours in one or both of the curriculum fields outside the student's major. In order to fulfill the requirements, courses outside the curriculum field of the student's major may not be taken in the student's teaching unit.

The student may choose among the course offerings designated for each curriculum field. Courses are so designated in the course descriptions in this publication and by a letter notation (i.e., "N," "S," "A") in the *Schedule of Classes*. These courses are listed in the offerings of both the teaching units and the General Education Program.

The student may present advanced standing or transfer credit that is comparable to the designated courses described above and applicable to the requirement.

The student may, where available and appropriate, present the results of College Level Examination Program (CLEP) tests or Advanced Placement tests, if the student has earned college credit through the test(s).

MINOR (OPTIONAL) Minors may be established in only those programs for which there is an analogous major. A minor will consist of 18 to 24 semester hours, including 12 semester hours at the upper level. Not more than 6 semester hours which are a part of a student's major may be offered to satisfy requirements for a minor.

The minor is optional for undergraduates and may be arranged in consultation either with an academic advisor from the teaching unit in which the student wishes to pursue the minor, or the Coordinator of Interdisciplinary Studies for minors that are modelled after interdisciplinary majors.

UNDERGRADUATE LEAVE OF ABSENCE Undergraduate students desiring a leave of absence for reasons other than study at another collegiate institution should request an appointment with their dean. At the dean's discretion, based on whether it seems desirable to guarantee the student an automatic readmission, the dean will issue a permit for leave of absence. One copy will be given to the student, one retained in the dean's office, and one forwarded to the Office of the Registrar for filing in the student's folder. This permit will specify a limitation, one year maximum, of automatic readmission to the same undergraduate program. It will also specify that the permit becomes void if the student attends any domestic or foreign collegiate institution during the period of the leave. In such instances, the student must obtain from his dean the Permit to Study at Another Institution prior to leaving The American University.

STUDY ABROAD Students with certain educational objectives may include in their undergraduate program study at an institution abroad. American University students may wish to consider the following options in planning such academic work.

STUDY ABROAD PROGRAMS This term is used to refer to any program at a foreign institution which is a formal part of a regionally accredited U.S. college or university, and is recorded on the transcript of that institution. For determination of regional accreditation, the publication *Credit Given* is the accepted reference.

After consultation with an approval from the student's dean, application is made directly to the institution for admission to its foreign study program. Transfer credit will be granted on the basis of the transcript from the sponsoring U.S. college or university.

ATTENDANCE AT AN INSTITUTION NOT AFFILIATED WITH AN AMERICAN COLLEGE OR UNIVERSITY The student must seek approval of the institution to be visited from his dean and the Coordinator of International Admissions, in the Office of International Student Admissions, The American University. (The Office of International Admissions is part of the Office of Admissions, Financial Aid, and Veterans Affairs). The Office of International Admissions will give final approval of the institution to be attended, and will evaluate the transcript on the student's return for the value in semester hours of the work completed.

The student's academic advisor and dean will approve the academic areas or specific courses for study. Students must be warned of the possibility that they might not receive credit for remedial language study if they are found deficient in the language of the country to be visited.

ATTENDANCE AT AN INSTITUTION NOT APPROVED FOR STUDY ABROAD Should a student decide to attend a foreign institution which cannot be approved by the Office of International Admissions for transfer credit, it may be possible to arrange for "competency examinations" on his return. Specific details should be worked out prior to departure. Arrangements and agreements should be in writing between the student and his dean, with one copy of the agreement filed in the student's permanent file in the Office of the Registrar. A fee for competency examinations is charged.

TRANSFER OF CREDIT Enrolled students who plan to take courses in other colleges and universities for transfer credit to The American University must receive prior approval in writing from their advisors and the dean of their college. This work is usually undertaken during the summer or as part of an overseas study program. Credit may be denied if the student does not receive prior permission.

NORMAL ACADEMIC LOAD AND FULL-TIME STATUS An undergraduate student admitted to and enrolled in a degree program normally registers each semester for 15 semester hours so that the required minimum of 120 semester hours for the baccalaureate degree is met in four years. In any given semester, a student may carry a minimum of 12 semester hours and be classified and/or certified (for veterans benefits, financial aid, etc.) as full-time for that semester. The additional

semester hours must be made-up through summer enrollment or by an overload (if approved by the dean) in the following (or previous) semester in order to remain in normal progress annually toward the degree, as often required by the regulations of government agencies. The student is urged to become familiar with such regulations. Seventeen semester hours is considered the maximum load without special approval.

ACADEMIC OVERLOAD An undergraduate student desiring 17 or more semester hours in a given semester is required to have the approval of his academic advisor and the appropriate dean. The approval is for the overload, not permission for a specific course. Generally, such approval will be granted when the student ranks within the upper 25% of the undergraduate student body. Ranking is based on the cumulative grade point average in work taken at The American University. It is also understood that the student should have no incomplete grades.

CLASS STANDING The class standing of an undergraduate student is determined at the end of each academic year on the basis of the number of semester hours satisfactorily completed during that year and the preceding summer sessions (including those accepted by the University as transfer credit). It is tabulated by the Office of the Registrar as follows:

0 through	29 semester hours	= freshman standing
30 through	59 semester hours	= sophomore standing
60 through	89 semester hours	= junior standing
90 through	120 semester hours	= senior standing

UNDERGRADUATE STUDENTS ENROLLED FOR GRADUATE DEGREE CREDIT A senior student with the permission of his department chairman or dean may enroll in specifically approved graduate courses not required for his undergraduate program. Such courses must be designated in writing as graduate degree credit at the time that the student registers for them. A copy of this written agreement must be placed in the student's folder in the Office of the Registrar. Retroactive application of these credits for such purpose is not permitted. Credit for these courses may be applied toward meeting the course requirements for a graduate degree after the student has been awarded his undergraduate degree and provided that he is then admitted to a graduate degree program.

No course or courses may be counted as credit toward both an undergraduate and a graduate degree, except as may be provided in a formally prescribed combined undergraduate-graduate degree program.

DECLARATION OF UNDERGRADUATE DEGREE MAJOR By the end of the sophomore year, if not before, each undergraduate student must choose and declare an academic major. Formal declaration of the major is required on a form available from the dean's, departmental, or registrar's offices. Admission to the University in an undergraduate program does not automatically constitute admission to a major program (except in the School of Nursing). Acceptance is official only when specific approval has been received from the department or program chairman or his designate and is recorded by the Office of the Registrar.

CHANGES IN COLLEGE, SCHOOL, OR MAJOR A student who wishes to change from one college or school to another, or from one major to another must receive the permission of the dean and/or department chairman in charge of the program to which he elects to transfer. This must be done on forms available from the dean's or departmental offices and filed in the Office of the Registrar. A change in college, school, or major affiliation, when approved, does not become effective until the beginning of the next semester. It does not become effective if the student becomes subject to suspension or dismissal for failure to maintain University minimum standards.

DOUBLE MAJORS A student can complete a double major by satisfactorily passing the required major and major-related course work required by the two departments and/or schools.

If the double major is pursued in two schools, the student must designate at the time of his declaration of the two majors which single school he will be registered in and graduated from. He will need to satisfy the general school requirements of that single school only.

A student may apply the same course to both major programs if it fits into both sets of requirements.

B.A./B.S. DEGREES Students who complete more than 50% of their course work (e.g., more than 60 semester hours) in major and/or major-related courses are eligible for the Bachelor of Science degree; otherwise, the degree awarded will be the Bachelor of Arts.

TWO UNDERGRADUATE DEGREES A student may qualify for two undergraduate degrees if he or she satisfies both major and major-related requirements within two departments and/or schools and accrues a minimum of 150 semester hours.

DEAN'S LIST AND GRADUATION HONORS Undergraduate students are eligible to be graduated with honors provided that they have completed at least one-half, i.e., at least 60 semester hours required for their degree in residence at The American University and have achieved the requisite grade point average. Up to but no more than 15 semester hours taken on a pass-fail basis may be included in American University work applied toward honors, but these courses will not be computed in the grade-point average.

Undergraduate honors and the grade-point averages required are as follows: *Summa cum laude*—3.90 or higher; *Magna cum laude*—3.75 through 3.89; *Cum laude*—3.50 through 3.74.

The term "honors" should be applied only to programs in the student's degree major field, whether those programs be departmental, school-wide, or interdisciplinary in character.

Departmental honor programs may be instituted at the option of the colleges and schools. In the College of Arts and Sciences, students selected for departmental honors programs in their major subjects enroll during their junior and senior years in up to three (or four) special projects and upon successful completion are recommended to receive departmental honors.

Each college or school may issue a "dean's list" of its undergraduate honor students each session. The minimum standard for inclusion in such a list is a 3.50 grade-point average for the term earned in a full-time undergraduate program totaling not fewer than 15 completed semester hours.

Honors earned through grade-point averages are listed in the commencement program and on the diploma. Departmental honors are listed only on the student's permanent record and in the commencement program.

Graduate Degree Requirements

These degree requirements are currently undergoing revision by the University Senate for later application. Candidates for graduate degrees are advised to contact their own particular dean or department chairman for subsequent developments and more detailed information.

Candidates currently enrolled for graduate degrees will be subject to those academic regulations in effect at the time of their admission.

TRANSFER OF CREDIT Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific times established by the academic unit. A maximum of six semester hours of graduate credit earned with a B or better may be transferred into a master's degree program. For transfer of credit to doctoral programs, see Semester Hour and Residence Requirements below. Transfer of credit is subject to the approval of the appropriate department chairman and dean.

GRADUATE STUDY AT ANOTHER INSTITUTION In a program of graduate study, there may arise circumstances wherein a graduate student, with the advice and counsel of the student's academic unit, may find it appropriate to take a graduate course not offered at The American University but available at a non-Consortium institution. In this event, the student must submit in advance a properly executed Permit To Study at Another Institution form. The student must, however, conform to regulations governing the maintenance of matriculation at The American University during each fall semester. In addition, the student must still satisfy the residence requirements set forth in the University Minimum Standards for Graduate Studies.

EVALUATION OF GRADUATE STUDENTS A minimum cumulative grade-point average of 3.00 in graduate study is required to maintain good standing at both master's and doctoral levels. This calculation will be made upon the completion of the first 12 semester hours of graduate study and at the end of each semester thereafter.

ADVANCEMENT TO CANDIDACY Each academic unit may at its option require a formal advancement to candidacy and determine the nature of the advancement procedure it will use.

SEMESTER HOUR AND RESIDENCE REQUIREMENTS

Master's Degrees (1) At least 30 semester hours of graduate work including (a) 6 semester hours of research resulting in a thesis (the thesis option) or in lieu thereof; (b) 6 semester hours of graduate work involving a case study, an in-service project, an original creative work, specified research courses, or such other effort as the academic unit may designate (the non thesis option). (2) At least 24 of these hours, including the thesis or nonthesis option, must be completed in residence at The American University.

Doctoral Degrees (1) For students admitted to graduate work at The American University without a previously earned master's degree, the requirement is 72 semester hours of graduate study which

will include no less than 12 and no more than 24 *hours of directed study* on the dissertation. In any case, at least 42 of these hours, including the research requirement, must be completed in residence at The American University. (Course credit earned towards a master's degree at the American University may, if relevant, be counted towards the Ph.D. degree.)

(2) For students admitted with a master's degree earned elsewhere, the requirement is at least 42 semester hours of additional graduate work, of which 36 hours, including the research requirement, must be completed in residence at The American University.

(3) Once a student has been admitted to graduate study toward a degree, he must obtain prior permission from his dean or department chairman in order to take graduate work at another institution which will count towards his degree objective at The American University. Otherwise, such work will not be counted toward a degree at The American University. Such work also may conflict with residence requirements.

ACADEMIC LOAD The normal load of full-time graduate study is 9 to 12 semester hours per session; however, a particular academic unit may declare circumstances under which full-time involvement in thesis or dissertation research constitutes full-time standing.

In the summer sessions, because of the combination of four-week, five-week, and seven-week sessions, there are various possibilities of full-time status. Normally, six semester hours during any five-week session is considered full-time. Students are referred to the summer *Schedule of Classes* for current definitions of full-time status during the summer sessions.

PREREQUISITE UNDERGRADUATE CREDIT Credit earned in undergraduate courses taken as required prerequisites for other courses by graduate students may not be counted toward satisfying the total credit requirement for a graduate degree and grades earned in them are not used in calculating the student's grade-point average.

TOOLS OF RESEARCH Each academic unit specifies the tool of research requirement(s) in each case. Tools should relate to research in the discipline in which the student is studying. The student's satisfaction of tool requirements is certified by the academic unit, which may subcontract the job or do it itself.

EXAMINATION PROCEDURES

Examination Timetable For both master's and doctoral degree students, the dean or department chairman (or designated representative) determines the time and eligibility for taking the examinations.

Application to take comprehensive examinations is made to the academic unit on a standard form available from that office. After approval is obtained, the student pays the appropriate fee at the Office of Student Accounts. In most cases, students should plan to apply during the first week of classes of the semester in which they plan to take the examinations.

Examination Fields Although proposed fields for comprehensive examinations may have been planned early in the graduate student's academic career, it is possible to change the fields up until the time the student actually submits the application for admission to the comprehensive examinations. Each college, school, or department offers its current list of standard comprehensive examination fields, including certain "core" fields and areas in which candidates in particular degree programs must present themselves for examination. (A list of these fields is presented in the respective sections of this publication.) A student may choose from the list (including the required core) the ones which are appropriate to his own interests and objectives.

In some disciplines, it is possible to choose a field outside the major area of interest. In choosing such a field, however, the candidate is required to choose one which is available at the time of his application to the comprehensive examinations.

Examination Grading Normally, each comprehensive examination written by a candidate is read by two readers and is rated distinction, satisfactory, or unsatisfactory by each reader. In order to pass the examinations the candidate must obtain at least satisfactory from both readers in each of the fields in which he was examined. In the event of a disagreement in the ratings between readers as to whether or not the candidate should pass, a third reader is appointed to break the deadlock.

Examination Grading Variations Each individual dean or department chairman may elect to determine a different system of grading comprehensive examinations for his own candidates. Students should consult the specific college, school, or department to ascertain what system is used. The system described above is the traditional one in use throughout most of the University.

EXAMINATION REQUIREMENTS

Master's Degrees (1) At least one comprehensive examination, the nature and scope of which is determined by the academic unit, will be required. (2) An oral examination on the thesis may be required by the academic unit.

Doctoral Degrees (1) A qualifying examination must be taken before completion of 24 semester hours of course work in a doctoral program at The American University.

(2) At least four comprehensive examinations will be required, at least one of which will be an oral examination. At least two comprehensive examinations must be written and must be taken within one year following the completion of the residence requirements. The qualifying examination and/or master's comprehensive examination, if taken at The American University, may be credited, at the discretion of the academic unit, toward meeting the comprehensive requirements for a doctoral degree. Comprehensive examinations given by other institutions will not be credited towards the satisfaction of degree requirements.

(3) An oral examination on the dissertation is also required.

Re-examination (1) *Qualifying Examination:* A student failing the qualifying examination (or its formal equivalent as defined by the academic unit) may be permitted one retake by his academic unit. If permission for the retake is denied, the student may appeal to the Committee on Graduate Studies.

(2) *Comprehensive Examinations:* A student who fails a comprehensive examination (other than a qualifying examination) may be permitted additional attempts within two years. The nature and extent of the examination to be retaken and the number of retakes to be allowed will be determined by the academic unit.

(3) *Thesis and Dissertation Oral Examinations:* In the event of failure to complete the oral examination satisfactorily, the academic unit may, at its discretion, permit one retake.

THESES AND DISSERTATIONS

Thesis and Nonthesis Options For master's candidates the thesis is expected to demonstrate the student's capacity to carry on original and independent research. Some colleges, schools, and departments of the University offer the opportunity to substitute a case study, an in-service project, an original creative work, or specific advanced research courses, in lieu of a thesis for the master's degree. In every such case, the thesis seminar or other accepted alternative must be considered part of the residence requirement for the master's degree and must meet the standards set forth by the individual colleges, schools, and departments as well as those of the University.

No academic credit is given for the master's thesis unless the student registers for the thesis seminar. However, he should not enroll for this seminar before he is ready to start work on his formal thesis proposal or the thesis itself. Traditionally, an advisory committee is appointed for each candidate working on a thesis. The committee may be composed of no fewer than two members, at least one of whom must be a member of the full-time faculty. An oral examination by this committee is often required. Suggestions for revision may be made as conditions to be met before members will sign the title page of the thesis. If the chairman of the thesis committee or the department chairman certifies failure to complete a satisfactory thesis, the student may be dismissed from the University.

A student who writes a thesis must adhere to the required form and content for the proposal and to the other procedures described in detail in the published guides which may be received from the office of the dean of his college or school.

Students electing the nonthesis option should obtain specific departmental requirements from their teaching units. The University minimum requirement is two research-oriented courses at the 600- or 700-level. Only grades of A or B in these courses will satisfy the nonthesis option.

Dissertation Capping the requirements for achieving the doctorate is the dissertation, together with the required oral examination of the dissertation by the student's teaching unit. Normally, the candidate must have completed all other academic requirements for the degree before the oral examination can be held.

When a candidate is declared ready to proceed to the dissertation he must submit a dissertation topic proposal reporting the results of his preliminary research. This proposal is expected to contain, among other things, a concise statement of the major problem of research and of related supporting problems, the data to be used, a selected bibliography, a statement of the probable value or importance of the study, a brief description of the methods to be used, and a preliminary outline of the dissertation in some detail.

After approval of the proposal by the candidate's advisor, it is presented to the dean of his college or school for final approval. Acceptance of the proposal indicates that the topic is a suitable one and that the dissertation will be accepted if developed adequately by the candidate. Acceptance of a dissertation topic proposal under no circumstances commits any department or school or the University to acceptance of the dissertation itself. The University will take responsibility for directing research only in fields and problem areas which its faculty members feel competent to handle.

A dissertation advisory committee of three to five persons is normally appointed by the candidate's academic dean for each candidate undertaking a dissertation. After the draft manuscript has received the tentative approval of all members of the committee, the committee chairman arranges for the oral examination. This covers the dissertation itself and the general field in which it lies. All members must agree that the candidate has passed the oral examination. Conditions to be met before final acceptance of the dissertation may be specified without necessarily holding a second oral examination.

If the chairman of the dissertation committee or the department chairman certifies failure to complete a satisfactory dissertation, the student is automatically dismissed from the University.

Final Manuscript Regulations concerning the form and preparation of the final manuscript, abstract, copyright, and so forth may be obtained from the dean or department chairman offering the doctorate. Certain deadline dates are found in the *Schedule of Classes* published for each academic term, and must be met if a candidate expects to receive his degree at the appropriate commencement.

Filing of Thesis or Dissertation Upon completion of the final manuscript, a student obtains the signature of the department chairman and dean on the Thesis/Dissertation Completion form, takes the form and the manuscript to the Office of Student Accounts to pay the appropriate fee (master's thesis \$25; doctoral dissertation \$35), to the Office of the Registrar for certification of the completion of degree requirements, and then to the Library for the filing of the manuscript. This procedure is to be followed after all course work has been completed.

Publication It is the policy of the University to encourage publication of dissertations, case studies, and theses, with acknowledgment to the University. In the event substantial alterations are made before publication, this fact must be noted in the prefacing statement which gives acknowledgment.

ABD (All-But-Dissertation) Status Students who enter a doctoral program without a master's degree may be awarded the appropriate master's degree from The American University in the field in which their doctoral work was done upon completion of all requirements for the doctorate except the dissertation.

CHANGE IN FIELD OF STUDY A graduate student who wishes to change his field of study or his school affiliation may request an approval of the change on the appropriate form available in the Office of the Registrar. A graduate student who wishes to change colleges must apply through the Office of Admission. The affected teaching unit may request copies of the student's record from the Office of the Registrar.

MAINTAINING MATRICULATION, REQUIRED GRADUATE STUDENT REGISTRATION The University requires students who have been admitted to graduate degree programs to register each year for the entire academic year (fall semester to fall semester) until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars during the fall semester must register in the fall of each year under the course number designation xx.099 Maintaining Matriculation (no credit) and pay the required non refundable fee. A subsequent spring and summer registration does not invalidate the necessity for registering in the fall semester. Graduate students are not eligible for a Leave of Absence, except for reason of military or government assignment as defined in the *Manual of Information, Regulations and Procedures*, Section III, Fourth Edition (September 1976), regulation 75.00.09.

A student in this category is entitled to use the library of the University and to consult with members of the faculty. A graduate student who does not so register, indicating his continued interest in completing his degree objective will be denied the right to continue his studies.

A student who takes a comprehensive examination in the fall semester is considered to be registered for that academic year and does not need to register for the xx.099 Maintaining Matriculation. His only fee is his comprehensive examination fee. However, he should process a registration form with the course number designation xx.098 to indicate his continued active status on his permanent academic record.

Grading System and Records

CALCULATED IN GRADE POINT AVERAGE

Grade	Quality Points	Description
A	4.0	EXCELLENT
A-	3.7	
B+	3.3	
B	3.0	VERY GOOD
B-	2.7	
C+	2.3	
C	2.0	SATISFACTORY
C-	1.7	
D	1.0	
F	.0	

POSTING SYMBOLS

R = Follows grade entry indicating course has been repeated

NOT CALCULATED IN GRADE POINT AVERAGE

I = incomplete

L = auditor (no credit)

N = no grade reported by instructor or invalid grade

P = pass

D GRADES No degree credit is earned by a graduate student for a D grade received in a graduate-level course. However, the D grade is used in the calculation of the grade-point average.

PASS-FAIL ENROLLMENT For undergraduate students the grade P indicates a quality of performance no less than C on a conventional grading scale.

For graduate students the P (normally given only for independent reading courses or research projects) indicates satisfactory completion of the work at the graduate level.

For both undergraduate and graduate students a grade of P does count toward graduation.

Effective with Fall 1969, undergraduate students may take up to 50% of their courses on a pass-fail basis. (With approval of a student's major department, a greater percentage of courses may be taken on a pass-fail basis.)

The pass-fail option may be granted to nondegree students at the discretion of the Dean of the Division of Continuing Education.

REMOVAL OF INCOMPLETE The grade of I (Incomplete) is given only to students who have made arrangements in advance with the instructor for the late completion of a course. A special form for this purpose is available from the Office of the Registrar and all dean's offices. Upon the completion of the requirements of the course within the time specified on the Incomplete Removal Form the grade of I must be resolved to an A, B, C, D, or F. Completion of such work may not extend beyond the end of the semester following that in which the I was given. Unless resolved to one of the grades indicated above, the I will stand as the permanent grade. A W may not be given to remove a grade of I.

GRADE-POINT AVERAGE The cumulative grade-point average includes only those courses taken for conventional grades (A, B, C, D, F). Courses taken on a pass-fail basis are not included in the grade-point average, nor are grades of incomplete (I).

Credit accepted on transfer from another institution is included in the total amount of credit applicable to degree requirements, but grades earned in such courses are not recorded on the permanent record at The American University, and are not used in computing the average needed for graduation.

FRESHMAN FORGIVENESS RULE A degree or nondegree freshman student who, during the first two semesters of full-time undergraduate study, receives a grade(s) of F in a course(s) may repeat the course(s) at The American University within the calendar year thereafter or in the next two regular semesters in which the student is registered. If the course is not given within the calendar year following the earned F, the student may utilize the option at the time the course is next offered. No grade shall be removed from the transcript, but when such a course is repeated, only the grade

earned the second time the course is taken shall be used in computation of the cumulative average for purposes of making decisions concerning probation, dismissal, and required average for graduation.

The part-time degree or nondegree first year undergraduate who, during his first eight courses of study, receives a grade(s) of F in a course(s) may repeat the course(s) at The American University within a calendar year after the semester in which the grade(s) of F was received, with the resulting cumulative index benefits stated above.

Degree and nondegree students who are readmitted to the University before they have embarked upon their third semester of college work may, within the first or second semester after their readmission, take courses in which they received F during their first two semesters at The American University, with the resulting cumulative index benefits stated above.

The foregoing regulations are not applicable to students who enter the University as transfer students, including those who enter as transfer students with freshman status.

It is understood that this regulation is applicable only when the dean's office of a teaching unit has so advised the student in writing.

It is understood that students who bring to the University course work earned through the Advanced Placement tests of the College Entrance Examination Board, the College Level Examination Program, college course credit earned before graduation from high school and course work completed during the summer immediately following high school graduation are not classified as transfers.

REPETITION OF COURSES Whenever a course is repeated, each attempt, including the final grade, is entered separately on the permanent academic record. Unless specifically indicated to the contrary, however, only one successful attempt of a course is counted toward fulfillment of graduation credit requirements. With the exception of the Freshman Forgiveness Rule, the grades received in all attempts are considered in the computation of the cumulative grade-point average.

ACADEMIC PROBATION AND DISMISSAL A student who fails to maintain the academic average required by the University and by his college, school, and/or department is subject to dismissal. An undergraduate student who does not maintain this average but who gives evidence of probable substantial improvement may, under certain circumstances and at the discretion of his dean, be placed on academic probation for a specified period of time in lieu of being dismissed. Graduate students and nondegree students are subject to dismissal at the end of any session during which their cumulative grade-point average falls below the required minimum. Graduate students who fail to satisfy requirements for the degree may be dismissed.

A student who is dismissed may not be readmitted to the University or any of its colleges and schools until a waiting period equivalent to a full calendar year after the effective date of his dismissal has passed.

An undergraduate student who fails to achieve and maintain a 2.00 (C) grade-point average during his first two semesters of full-time study (or the equivalent part-time study) but whose cumulative grade-point average is 1.75 or above, may be placed on academic probation for one year. Academic probation is an action customarily taken only in the first two years of full-time study (or the equivalent amount of part-time study) for undergraduates. Dismissal may be anticipated by any student who in his third or fourth years of full-time study (or the equivalent amount of part-time study) falls below 2.00 in his cumulative grade-point average, or whose average in any semester drops to a 1.00 or below.

Actions involving academic probation and dismissal (but not academic warnings) are entered on the student's permanent record and the removal of these entries after they are made is not authorized.

A graduate student who fails to maintain a grade-point average of 3.00 may be granted probationary status for one semester after which time the student must have a 3.00 average or be dismissed.

The calculation of the average for this purpose begins after the first 12 semester hours have been completed.

TRANSCRIPTS A student may obtain a transcript of his academic record from the Office of the Registrar. There is a \$2 fee for each official transcript.

The University will not issue a transcript which reflects only a part of a student's record, nor will it make copies of transcripts on file from other colleges and universities.

Transcripts will be released only on the written signature request or release of the student concerned.

CERTIFICATION OF ENROLLMENT The Office of the Registrar supplies upon request of the student involved, certification of certain academic data concerning the records and status within the

University of currently enrolled students. These certifications are used for HEW and scholarship forms, employment applications, etc. They are not to be confused with transcripts of the student's permanent academic record.

NAME CHANGE The student's name entered on the permanent records may be changed if the name has been legally changed and if the change is supported by court order. A student who is a married woman may change her name of record to her original name by submitting a statement and other supporting documentation. Changes of name on the permanent records will be made for currently enrolled students only. Diplomas may not be changed or reissued.

Registration

PROCEDURE Registration is conducted on the dates specified on the academic calendar published in detail in the *Schedule of Classes*. In order to register a student must: (1) be admitted to the University or be approved for enrollment for nondegree study; (2) secure approval of his program of study from his academic advisor; (3) complete the necessary registration forms and pay his tuition and fees; and (4) turn in all registration forms to representatives of the Office of the Registrar. More detailed information and instructions are published in the *Schedule of Classes*.

ADVANCE REGISTRATION All currently enrolled students, full-time or part-time, graduate, undergraduate, or nondegree, with the one exception of new international students, are eligible to advance register for the fall and spring semesters. No financial obligations are included in advance registration. Payment of tuition and fees must be completed by the dates announced for each semester in the *Schedule of Classes*. Failure to pay may result in the administrative withdrawal of the student. Full details on advance registration are issued each semester by the Office of the Registrar.

LATE REGISTRATION Late registration, subject to a \$15 fee, is permitted during the period provided in the academic calendar. No student will be allowed to register after these dates.

AUDITORS A student who wishes to attend a class but who does not wish to participate, take examinations, receive a final grade, or receive credit for the course, may register as an auditor. Tuition and fees for auditors are the same as those for students registering for credit.

COURSE AUDIT BENEFIT PROGRAM FOR UNDERGRADUATE STUDENTS Qualified undergraduate students may audit up to three undergraduate courses in a standard degree program upon completion of their 32nd course at The American University. Enrollees in this program must have a cumulative grade-point average of 3.50 upon completion of the 24th course at The American University. (No I or N grades are included in this computation). Registration is accomplished with a special add slip during the first two weeks of a semester. Special audit courses do not involve tuition fees but any associated fees (e.g., music fee) are payable by the student.

NONDEGREE STUDENT REGISTRATION If a student does not wish to pursue a degree program but desires to register for particular courses for which he has the necessary qualifications, he may be considered for admission to the Division of Continuing Education as a nondegree student. He receives full academic credit for courses taken (unless he registers as an auditor, in which case he is not responsible for attendance or examinations and does not receive a grade or academic credit).

CHANGES IN REGISTRATION

Add/Drop A student who finds it necessary to add or drop a course, or change a credit value (in a variable credit course) or grade type in a course for which he is already enrolled, may make such an adjustment to his registration starting on the first day of classes of each semester. A student may not add a course after the second week of classes for each semester (excepting independent reading courses or study projects which may be added through the tenth week of classes). A student may not change his grade type in a course from or to pass-fail, or from audit to credit after the second week of classes. A student may drop a course or change his grade type in a course to audit through the fourth week of classes.

To officially effect the above, a Course Registration Change Form must be processed in the Office of the Registrar after securing the appropriate approval signatures. Detailed instructions are provided in the *Schedule of Classes* for each term.

Withdrawal from All Classes or the University A student who wishes to withdraw from all courses for which he is enrolled during a given term must execute a Withdrawal Request form initiated in the office of his dean. This same form may be used for withdrawal from the University. Discontinuance of attendance in class or notification of a status change to the instructor does not constitute an official

withdrawal. If the withdrawal will result in a refund, requests for such refunds should be made in the Office of Student Accounts.

International Students International (foreign) students must have any change in registration approved by the International Student Advisor or his designate.

EXTENDED-CAMPUS REGISTRATION The Division of Continuing Education arranges for course offerings at selected extended-campus locations throughout the metropolitan Washington area. These courses provide both graduate and undergraduate programs as well as nondegree study opportunities. Although the scheduling of extended-campus courses follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the campus semester dates in all details. Students should consult the *Extended-Campus Schedule of Classes* published for each academic term.

While students may register for most extended-campus courses during advance and general registration, special registrations are held at the extended-campus locations. For further details, consult the Division of Continuing Education.

CONSORTIUM OF UNIVERSITIES REGISTRATION In cooperation with The Catholic University of America, Georgetown University, The George Washington University, Howard University, Gallaudet College, Mount Vernon College, and Trinity College, The American University offers its qualified undergraduate and graduate degree students the opportunity to enroll for courses at these other institutions through the Consortium of Universities of the Washington Metropolitan Area. Such courses are normally limited to those which are not offered by or which may not be immediately available at The American University. Credit earned through this program is considered residence credit.

Courses in the off-campus program of The George Washington University may not be taken through the consortium program by American University students, nor may students from other consortium universities take American University extended-campus courses through the consortium program.

Independent reading courses, independent study projects, and special tutorial courses, as well as courses offered in medicine, dentistry, nursing, or law are excluded from consortium registration.

To be eligible for this program, students must: (1) be fully admitted degree students, (2) be actively enrolled, (3) be in good academic standing, (4) be approved by the dean or department chairman of the subject matter field for which registration is requested (and who is responsible for securing approval at the cooperating institution), and (5) be approved by the Office of the Registrar.

Forms to be used for this program are available in the Office of the Registrar. Students must follow the registration procedures as published in the *Schedule of Classes* for that term, and pay the tuition rate of The American University.

CONSORTIUM LIBRARIES Graduate degree students enrolled in one of the consortium universities or associate member colleges listed above will be eligible for direct-borrowing permits. Applications for a consortium borrowing card are to be made at the main library of the home university.

Any eligible consortium student who registers for a course at another consortium institution automatically receives borrowing privileges at the institution giving the course.

ACADEMIC ADVISING AND COUNSELING The philosophy inherent in the educational process at The American University embraces three major principles: (1) flexibility in academic programs; (2) responsibility on the part of students in planning their academic programs; and (3) adequate guidance and support from faculty and staff in helping students plan their programs.

For undergraduate students the process of academic advisement is initiated prior to the freshman year. Under the direction of the Associated Dean of the College of Arts and Sciences, the incoming student is assigned a faculty advisor based on the student's general area of interest. In schools and colleges other than the College of Arts and Sciences, this faculty member would normally continue in his role as academic advisor until graduation, unless the student transferred to a different college or school in the University. In the College of Arts and Sciences, a student's freshman advisor continues to assist him from the beginning of his academic career until he formally declares a major (by the end of his sophomore year), at which time he is assigned an advisor in his major field of study.

The American University is committed to proper academic advisement. All full-time faculty members are required to schedule regular, posted office hours of a minimum of four hours per week. Students are also welcome to meet with their undergraduate or graduate dean or counselors in their college or school when they wish to do so. Working in conjunction with the academic offices are the Counseling Center and the Office of Career Development.

The flexibility of academic programming and the need for mutual sharing of this responsibility between faculty advisors and students necessitates an on-going interchange between the student and his advisor. Prior to registration for each semester's work, the student must meet with his faculty advisor to plan his program and secure the required approval on his registration form. Any subsequent addition to the student's schedule of classes must also be approved by his advisor.

The Division of Continuing Education provides nondegree students with a full-time advisement staff and the opportunity to arrange evening appointments when necessary.

General Curriculum Information

COURSE NUMBERS Each course is designated by a five-digit number. The digits to the left of the decimal point represent either the academic unit offering the course or a specific subject area within such an academic unit: 03.xxx Anthropology; 19.xxx Economics; 07.xxx Art History. The last three numbers identify the level of the course as follows: xx.001–xx.099 = no degree credit; xx.100–xx.499 = undergraduate degree credit; xx.500–xx.599 = graduate course to which advanced undergraduate students may be admitted; xx.600–xx.799 = graduate course to which undergraduate students normally are not admitted.

Extended-campus courses carry either the letter O or C as a prefix to the academic unit code. The present teaching unit codes for course numbers are as follows.

<i>Teaching Unit Name</i>	<i>Course Number Code</i>
Academy for the Performing Arts (see Performing Arts)	
Administration of Justice	73.xxx
American Studies	02.xxx
Anthropology	03.xxx
Applied Public Financial Management Institute	28.xxx
Art: Art History	07.xxx
Studio and Design	05.xxx
Biology	09.xxx
Business Administration	10.xxx
Business Administration	11.xxx
Transportation	12.xxx
Public Relations	13.xxx
Chemistry	15.xxx
Communication	17.xxx
Community Studies: Pride/American University Institute, Latino Institute	71.xxx
Computer Science (see Mathematics, Statistics, and Computer Science)	
Sonsortium and Cooperative Program Affiliated Institutions	
Catholic University of America	82.xxx
Gallaudet College	85.xxx
Georgetown University	86.xxx
George Washington University	87.xxx
Howard University	88.xxx
Mount Vernon College	84.xxx
Trinity College	89.xxx
Wesley Theological Seminary	81.xxx
Cooperative Education Program	00.xxx
Dance (see Performing Arts)	
Earth Science (Chemistry)	27.xxx
Economics	19.xxx
Education	21.xxx
English Language Institute	74.xxx
Government and Public Administration: Government and Political Science	53.xxx
Public Administration	54.xxx
Special Study	52.xxx
Washington Semester	56.xxx
History	29.xxx
Interdisciplinary Studies	75.xxx
International Service	33.xxx
Institutes (see appropriate academic unit)	

Jewish Studies	34.xxx
Language and Foreign Studies: Advanced and Topics	37.xxx
Elementary and Intermediate	36.xxx
Latino Institute (see Community Studies)	
Law	39.xxx
Liberal Studies	30.xxx
Literature	23.xxx
Mathematics, Statistics, and Computer Science: Computer Science	40.xxx
Mathematics	41.xxx
Statistics	42.xxx
Music (see Performing Arts)	
Nursing	46.xxx
Performing Arts: Dance, Music, and Theatre	67.xxx
Academy for the Performing Arts	48.xxx
Applied Music	68.xxx
Philosophy and Religion: Philosophy	60.xxx
Religion	61.xxx
Physical Education	49.xxx
Physics	51.xxx
Pride/American University Institute (see Community Studies)	
Psychology	57.xxx
Religion (see Philosophy and Religion)	
Sociology	65.xxx
Statistics (see Mathematics, Statistics, and Computer Science)	
Technology and Administration	55.xxx
Theatre (see Performing Arts)	
University Courses (not part of a teaching unit)	00.xxx

CREDIT VALUES Effective Fall 1978, the University changed undergraduate degree requirements from 32 course units to 120 semester hours. All undergraduate and graduate courses are valued in semester hours. There are no fractional semester hours. Generally, each semester hour is equal to a contact hour of 50 minutes.

COURSE DESCRIPTIONS AND SYLLABI Descriptions of individual courses are given with the course listings in this publication. Course syllabi are available at the Reference Desk in the University Library.

COURSE PREREQUISITES Many courses call for a previous minimum background of knowledge as indicated by courses cited in individual descriptions as prerequisites. Titles are those of The American University courses; equivalent courses satisfactorily completed at other accredited institutions also meet prerequisite requirements by transfer credit.

Administrative officers may sometimes waive prerequisites on the basis of experience and professional achievement. Where this is done, the student should secure the syllabus of the prerequisite course and complete the readings on his own. This will minimize the problem of gaps and out-of-date information.

Prerequisites mean the instructor will not use class time to go back and teach the material of the preliminary courses. Students are held responsible for entering the class already possessing the required competence. Thus, prerequisites warn students of the knowledge they are to bring with them in order to meet the expected standards of performance. Failure to possess this background can endanger the student's good standing and his ability to continue in the school. Therefore, students may be required to drop the course in question and register for the prerequisite course or courses instead.

INDEPENDENT READING COURSES AND STUDY PROJECTS An *Independent Reading Course* is defined as a course in which a student by prearrangement with an instructor reads a body of material with a minimum of formal instruction.

An *Independent Study Project* is defined as a course in which a student does research on a topic agreed upon by the student and the instructor, or engages in any mode of education deemed worthy of a student's efforts by the instructor responsible for the course. This may include teaching undergraduates on a guided basis, participation in educational programs off campus, travel under stipulated conditions, and so forth. In essence, this is a vehicle enabling the student to range as far as his interest and preparation carry him, subject to the approval of a faculty member and his school or department.

It is expected that registration in these courses will be at the regular registration period for a semester or summer session. It is possible, however, to register in an independent reading course or study project through the end of the ninth week of a fall or spring semester or second week of a summer session. (A student desiring to begin such a course after the deadlines may do so informally, but he must register for the course at the beginning of the following semester thereby including the course in that semester's course load and tuition computation.)

These courses may be taken for one through six semester hours credit, the exact amount to be determined at the time of registration. These courses must be completed normally by the end of the semester of registration but, in no case, later than one calendar year from the date of registration.

Approval of the department chairman is required. In the event that the project duplicates a concurrently scheduled course, the approval of the dean of the school is also required.

Students registered in independent reading courses or study projects may be assigned conventional grades or, if they are undergraduate students, grades of pass or fail, according to agreement made at the time of registration. Once assigned, a grade of pass or fail cannot be changed to a conventional grade or vice versa.

It is expected that the student will meet periodically with the instructor to review his progress. If the student is not in Washington, it is assumed that he will be in correspondence with the instructor concerning his progress. Normally, the instructor will be expected to reside in Washington while he is supervising one of these projects.

Students permitted to enroll in independent reading courses and study projects should enter on their registration forms the code of the department (01.xxx-90.xxx) which will supervise their work, followed by the number of the particular course to which they are being admitted. See below:

Undergraduate Level

- xx.390 Independent Reading Course
- xx.490 Independent Study Project
- xx.491 Internship
- xx.398, xx.399 Department Honors Junior Year
- xx.498, xx.499 Department Honors Senior Year

Graduate and Advanced Undergraduate Level

- xx.590 Independent Reading Course

Graduate Level

- xx.690 Independent Study Project
- xx.691 Internship

NONRECURRING SELECTED TOPICS COURSES A Selected Topics Course (nonrecurring) is defined as any course or project involving a group of students on a nonrecurring and/or experimental basis. This will include all courses which do not form a regular part of the curriculum of a department or school. In essence, this is a vehicle which will enable the faculty to offer courses on a single-time basis. It is also a vehicle for experimentation within the curriculum. It is distinguished from independent study projects in that it is open to groups of students under the same conditions by which a student registers for any course. Such a course may be offered for one to six semester hours.

Departments making use of a nonrecurring selected topics course will list such a course in the *Schedule of Classes* using the code of the department (01.xxx-90.xxx) followed by the code of the course (see below) and the title of the course.

Undergraduate Level

- xx.196 Selected Topics (Nonrecurring)
- xx.296 Selected Topics (Nonrecurring)
- xx.396 Selected Topics (Nonrecurring)
- xx.496 Selected Topics (Nonrecurring)

Graduate and Advanced Undergraduate Level

- xx.596 Selected Topics (Nonrecurring)

Graduate Level

- xx.696 Selected Topics (Nonrecurring)
- xx.796 Selected Topics (Nonrecurring)

SCHEDULE OF CLASSES The *Schedule of Classes* is published by the Office of the Registrar for advance registration and general registration for the fall and spring terms, and once for the summer sessions term.

ACADEMIC CALENDAR At the present time the academic year is divided into the fall and spring semesters (of approximately 15 weeks each) and a summer term (also of approximately 15 weeks) comprised of two five-week sessions, one four-week session and two seven-week sessions.

Final examinations, when given, are scheduled in the last class meeting of the academic term.

The decision to give final examinations is left to the discretion of the college, school, department, or individual instructor offering the course.

The holidays and vacations usually observed by the University are as follows: Thanksgiving Weekend (Thursday, Friday, Saturday); Christmas and New Year's Day (included in the intersession break); Inauguration Day (every four years); Washington's Birthday; Memorial Day; Independence Day; and Labor Day. Classes continue until 11:00 pm in the evening before a holiday or a vacation period.

The official calendar for each academic term is published in detail in the *Schedule of Classes* for that term. Faculty members and students should check this source for final information about the current academic calendar. The University reserves the right to change any published calendar, including that in the *Schedule of Classes*. Information about last minute changes will be distributed as widely as possible, especially through the local news media.

The Washington College of Law traditionally follows a calendar which differs somewhat from that of the rest of the University.

CLASS PERIODS Day classes, except those on Wednesdays and Saturdays, ordinarily meet two days a week for 75 minutes a meeting. Wednesday and Saturday classes ordinarily meet once a week for two hours and 30 minutes. Some classes may meet three times a week for 50 or 60 minutes a meeting.

Evening classes ordinarily meet once a week for two hours and 30 minutes or twice a week for 75 minutes a meeting.

Classes at the 600- and 700-course levels may, in a number of cases, meet for a total of two hours a week at the discretion of the teaching unit concerned.

Courses involving laboratory, studio, discussion groups, or workshops may vary from the above schedules. Independent reading courses, study projects, internships, and similar types of study opportunities meet according to the special arrangement with the school, department, or faculty members concerned. Students are advised to note carefully the meeting times listed in the *Schedule of Classes* for each academic term.

EMERGENCY CANCELLATION OF CLASSES In the event of an emergency, University classes are cancelled when the District of Columbia and United States Government authorities close District and Federal offices. Otherwise, unless cancellation of classes under special circumstances is announced publicly through the media, classes will meet. When cancellation of classes is necessary, instructors are expected to arrange for additional reading, study assignments, or class meetings to compensate for attendance time lost.

CANCELLATION OF COURSES Occasionally it is necessary to cancel a scheduled course because of low enrollment, because of the last-minute unavailability of an instructor, or for other unavoidable reasons. Every effort is made to announce cancellation before the first class meeting, but this is not always possible.

If a course is cancelled, a student who does not choose to transfer to another course may receive a full refund of the tuition and fees paid for the cancelled course by completing a refund request form in the Office of Student Accounts.

CLASS LOCATIONS Most classes meet on the University campus located at Ward Circle at the intersection of Massachusetts and Nebraska Avenues, N.W. A few classes meet at special locations as indicated in the *Schedule of Classes* for each academic term.

A standard program of extended campus instruction is administered by the Division of Continuing Education which arranges for course offerings at selected extended-campus locations throughout the metropolitan Washington area. These include both undergraduate and graduate courses in several fields offered by the University and come under the same regulations and conditions as credit earned in courses meeting in University facilities on campus.

Although scheduling of extended-campus classes follows the general pattern of the University

calendar and time schedule, it does not necessarily conform to the campus semester dates in all details. The extended-campus *Schedule of Classes* for each academic term should be consulted for further information.

CLASS ATTENDANCE The University considers class attendance a matter best left to the discretion of the individual classroom instructor. It is expected, however, that those faculty members who require a stated attendance policy will announce that policy at the first few class meetings each semester.

Veterans and others receiving government benefits are reminded that the paying agency may have specific attendance policies. Details of veterans benefits are available from the Veterans Counselor in the Office of Admissions, Financial Aid, and Veterans Affairs.

Confidentiality of Student Records

I CONFIDENTIALITY OF OFFICIAL STUDENT RECORDS All official student information records maintained by the academic and administrative offices of The American University are considered confidential, and only such information as is necessary to the normal operations of the University is maintained in official student information records. The University requires each recordkeeping office to establish and maintain procedures and practices which will reinforce the principles of confidentiality listed below.

II TYPES OF OFFICIAL STUDENT RECORDS The academic and administrative offices of the University maintain the following different types of academic and non academic student information records:

- (A) Academic Records
 - (1) Permanent record of academic achievement (transcript) including supporting documents
 - (2) Academic advisor and deans' files
 - (3) Admissions files
- (B) Nonacademic Records
 - (1) Loan and scholarship files
 - (2) Medical files
 - (3) Residence files
 - (4) Student conduct and activity files
 - (5) Career Development files
 - (6) International student files
 - (7) Alumni files
 - (8) Student Accounts files
 - (9) Library files

All official student information records are maintained by University staff members in the course of performance of their normally assigned duties, and only those administrative, faculty, and academic staff personnel who have a legitimate educational interest and who require access to student information records in the course of their normally assigned duties shall have that right of access.

III TYPES OF INFORMATION IN AND EXCLUDED FROM OFFICIAL STUDENT RECORDS Only such information as is directly relevant to the educational processes of the University or which is voluntarily offered by the student and accepted from such student shall be included in the officially maintained student information records listed above. Specifically excluded from such student information records are references to race, political or social beliefs and practices, membership in any organization other than professional and/or honorary societies and/or student activities listed by the students themselves.

All confidential financial statements from parents in the Financial Aid Office, psychiatric and psychological records of students in the University Counseling Center, medical and psychiatric records of students, and confidential letters of evaluation or recommendation written before January 1, 1975, are specifically excluded from the definition of official student records. Such records are treated as strictly confidential, as privileged records, and under applicable laws, not accessible to students and to others except as provided by relevant and applicable laws.

IV OFFICIAL STUDENT RECORDS The following conditions relative to disclosure of information in official student records must be observed by all University officers and personnel:

- (A) *Students* Each student shall have the right personally to inspect his or her own official student

records, subject only to reasonable restrictions as to time, place, and supervision. Challenges to the accuracy of the content of official student records may be presented by the eligible student, in writing, to the offices responsible for maintaining those records.

(B) University Personnel Use Only those University academic and administrative personnel who have legitimate educational interest and who require access to official student records in performance of their normally assigned functions may have access to information contained in official student records.

(C) Disclosure of Information in Official Student Records to Others Information contained in student records shall not be disclosed to persons other than the student involved (paragraph A above) or University personnel requiring such information in performance of their normally assigned functions (paragraph B above), except as follows:

(1) Public Record Information Any inquirer from outside the University may be given verification of the following information: (a) student's full name; (b) date and place of birth; (c) dates of attendance at the University; (d) student's status, including division and class; (e) date of graduation, if applicable, and degree granted. In the event that the inquirer's information is incomplete or incorrect, completion or correction or volunteering additional information by the University personnel shall not be allowed.

(2) Upon written request, local, state, and federal agency personnel may be furnished public record information described in paragraph (1) above, and in addition, may review the student's permanent record card if such review is expressly requested or authorized in writing by the student.

(3) Medical records information pertaining to a student may be reviewed by a physician, psychiatrist or other recognized professional, acting or assisting in such capacity, for treatment purposes, upon request in writing signed by parent, legal guardian, or by court order if the student is not emancipated (considered a minor under District of Columbia laws), or upon the written request of the student if he or she is 18 years of age or over or emancipated.

(4) Upon subpoena, court order, or notice under court direction from one of the courts having jurisdiction in the District of Columbia for production of the official records, or by other lawful public authority, provided, however, that the University shall take reasonable steps promptly to notify the student concerned that his or her official records have been subpoenaed or their production required under court jurisdiction. The University must comply with such court orders or requirements.

(5) Requests for transcripts and other educational records by another college or university in which the student intends or seeks to enroll, or when an otherwise legitimate reason for the request is indicated, shall be honored, and the record information shall be duly transmitted by the University, and the student will be notified of such actions and furnished a copy of the record, if he or she so wishes.

(6) Career Development Center files are open only to the student and to persons and organizations specified in writing by the student.

(7) When Internal Revenue agents request student records, the University will require of the agent an official IRS subpoena to produce, specifying the records and stating why they are required. There is a time period in which to respond to such subpoena, and during this period before compliance, an effort will be made to notify the student or the alumnus concerned promptly and in writing at his or her last known address. This will not relieve the University of the necessity of complying with the subpoena within the required period, and this action must be taken by the University in compliance with law.

(8) Information from the education records of a student may be disclosed to a parent(s) of a dependent student as defined in the Internal Revenue Code of 1954, provided that prior to any such disclosure the parent(s) submit an affidavit stating that the eligible student (paragraph IV A) is a dependent for income tax purposes.

V LETTERS AND INTERVIEWS OF REFERENCE University personnel should voluntarily write letters of reference or grant interviews of reference upon specific request by the student or alumnus concerned and only to persons and organizations specified by the student. For these purposes, application for employment and/or application for transfer to another educational institution shall be considered as a request by a student or alumnus to supply reference information. Copies or notes of such reference information shall not be included in official University records other than Career Development files initiated by the student or alumnus and open to persons and organizations specified by him or her. Copies of letters of reference may be maintained in the custody of the

University faculty or staff who write same. Letters of reference written after January 1, 1975, are accessible under law to the students concerned.

VI INACTIVITY OF STUDENT RECORDS After five years have elapsed since the student was graduated or was last registered at the University, only the following official student information records shall be maintained by the University:

- (A) Permanent record of academic achievement, including supporting documents.
- (B) Career Development Center files which remain active upon request.
- (C) Such financial records as are necessary so long as there exists a financial obligation to the University.

All retained official records continue to be subject to the provisions of this statement.

VII MAINTENANCE OF RECORDS AND COMPLIANCE WITH POLICY Each academic and administrative office shall also institute procedures to insure the confidentiality of student records and to comply with the laws and rules governing release of student information. The Office of the Provost and The Official Student Records Policy Council shall be kept informed of such procedures. Should any student have substantive reason to believe that these rules and the subsidiary procedures are not being followed by any academic or administrative office of the University insofar as his or her official student records are concerned, that student may inform the Official Student Records Policy Council in writing of his or her concern and request a review of the matter. The Official Student Records Policy Council may then investigate the alleged violation and recommend appropriate remedial or corrective action, as required.

The Official Student Records Policy Council

SECTION 1

There is established at The American University The Official Student Records Policy Council which shall be administered by the Office of the Assistant Provost for Academic Support.

SECTION II

- (A) The Council shall consist of three members, all of whom shall have voting powers with respect to the final decision, conclusions, and actions of the Council.
- (B) Members of the Council shall be designated by the Provost. A representative of the Washington College of Law may be a resource person to the Council.
- (C) The Members of the Council shall serve until replaced by the Provost.
- (D) Two of the three voting members of the Council shall constitute a quorum and a voting majority with respect to the final decisions, conclusions, and actions of the Council.

SECTION III

Pursuant to Rules of Procedures, hereinafter set forth, all council hearings dealing with individual student challenges to the content of their personal educational records shall be conducted in executive session and all information and actions of the Council shall be considered confidential.

SECTION IV

The council shall:

- (1) investigate allegations in writing from any student that his or her educational records are inaccurate, misleading, or otherwise in violation of privacy or other rights of students;
- (2) study and collect information concerning rights under the University's Policy on Confidentiality of Student Records;
- (3) serve as a clearing house (collection and dissemination) of information in respect to rights and protections under the University's policies and applicable law;
- (4) submit reports and recommendations to the Provost at such times as the Council shall deem them desirable or upon specific request of the Provost.

SECTION V

Pursuant to its duties contained in Section IV, the Council shall provide opportunity for hearing to any student challenging the content of his or her educational records to insure that the records are not

inaccurate, misleading, or otherwise in violation of the privacy or other rights of students; and the Council is empowered to submit to the appropriate officers of The American University any corrections or deletions of any inaccurate, misleading, or otherwise inappropriate data contained in the challenging student's educational records which the Council, after investigation and due hearing opportunity, has found to be contained therein.

The Council is further empowered to submit to the appropriate officers of The American University recommendations for appropriate general remedial actions by duly constituted authorities. Said recommended remedial actions, based upon the Council's findings, shall not be limited to cease and desist orders, but shall include positive actions to eliminate any further recurrence of activities which constitute denial of rights under the University's Policy on Confidentiality of Student Records.

RULES OF PROCEDURE

I Pursuant to The Family Educational Rights and Privacy Act of 1974, the Council will investigate allegations submitted in writing by any student of the University Community who challenges the content of his or her own educational records as being in deprivation of his or her rights under said act.

(A) Action of the Council will be commenced by a complaint filed in writing, which sets forth facts upon which such belief or beliefs are based.

(B) Complaints must be filed in writing to the Council on the appropriate form provided by the Council.

II All complaints received in writing will be promptly acknowledged in writing by the Chairperson of the Council.

III After acknowledgment of a complaint filed, the Council will meet to examine the complaint and to determine its jurisdiction to hear the complaint.

IV A decision of lack of jurisdiction will constitute a dismissal of the complaint expunging all allegations therein from the records of the Council except the record of filing and the disposition on jurisdictional grounds.

V If the Council determines it has jurisdiction pursuant to the Act, a hearing on the complaint will be scheduled by the Council and parties in interest will be invited.

Copies of the educational records challenged will be produced and furnished to the Council upon due notice to the University custodian thereof.

VI Unauthorized disclosure of confidential information by the Council members of its proceedings will constitute grounds for challenge to capacity to serve on the Council.

VII Hearings conducted by the Council shall be in a manner and fashion consistent with the fundamentals of procedural and substantive due process.

Copies of the Student Records Confidentiality Policies and Procedures are available in the following campus offices: Vice President for Student Life, 220 Mary Graydon Center, the Assistant Provost for Academic Support, President's Office Building, and the Office of the Registrar, Asbury Building, South Wing.

General Information

STUDENT RESPONSIBILITY The student is responsible for his behavior, academic and otherwise, at The American University. The American University expects that each student, as a mature member of the academic community, will adhere to the highest standards of personal integrity and good taste in his conduct and in his relationships with others.

To protect his academic status, a student should seek the appropriate approval of his academic program advisor. It is highly recommended that students keep their own internal records of all transactions with the University (grade reports, registration schedules and changes, incomplete forms, etc.).

It is also advisable to keep copies of all tests and papers submitted in fulfillment of course work.

UNIVERSITY LIABILITY Faculty, students, staff, and guests are responsible for their personal property, clothing, and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefore.

MOTOR VEHICLES Freshman, sophomore, and junior students who reside on the campus are not allowed to bring motor vehicles which require licensing to The American University. Seniors and nonresident students who are allowed to bring motor vehicles to the campus must register them at the Office of Security, Clark Hall, display a valid parking permit, and observe the University's parking and speed limit regulations.



General Education Program

The General Education Program is designed to provide students with knowledge in the traditional areas of human thought, and with an understanding of the intellectual approaches and methods of disciplines outside the curricula of their majors. The goal of the General Education Program is to present courses that reveal how a discipline relates to broader fields; for example, how physics is part of the natural sciences, or how it is connected with fields outside the natural sciences, such as philosophy. In this way students should get a sense of how diverse areas of human knowledge are part of a common intellectual experience.

There are two types of general education courses, those within one discipline and those combining two or more disciplines. These courses might not fulfill the requirements of a particular major; they do reflect the position of that discipline or disciplines as part of human knowledge.

Courses for the General Education Program are selected by the General Education Committee, which consists of faculty and students. Courses are selected on the basis of content, balance, and excellence of instruction.

The University requirements for distributive electives may also be met through the General Education Program. (See Undergraduate Degree Requirements in this publication.)

Course Examples

ARTS AND HUMANITIES

THE DISINHERITED MIND: MODERN RELIGION AND SECULARIZATION (3) Effects of processes of secularization of human consciousness in nineteenth and twentieth centuries. Concepts of the "disinherited mind" are explored in terms of "crisis of meaning," "fragmentation of identity," "nihilism," and "anomie." Expressions of this consciousness in philosophy, theology, art, and literature are examined.

MUSIC, PERFORMANCE, AND SOCIETY (3) Performance as project of musical expression. Performance within its social context. Course attempts to generalize from performance in the narrow sense of a formal act on stage to performance in general sense in which everyone performs some role or in some capacity in everyday life.

NATURAL SCIENCES

THE WORLD OF SOUND AND LIGHT (3) Explores mathematical and physical nature of sound and musical tones to understand structure of music from physical and aesthetic view. Explores nature of light and color from its physical principles to its subjective properties. Explores how man has used light and color as tools in art and communication.

HUMAN HEREDITY (3) Science of genetics and its relevance to history of man. Topics may include evolution of man, his relationship to other animals, inherited characteristics, effect of genetic intervention on man's existence. Scope and area of study are directed in part by students.

SOCIAL SCIENCES

THE DISCOVERY OF CHANGE (3) Examines transition from "progress" as the unifying idea of nineteenth century to discovery of "change" as the experience of the generation after 1900. Stresses sociology, psychoanalysis, and art movements. Utilizes literature of Robert Musil, Thomas Mann, Proust, Roger Martion du Gard, and H. G. Wells. Feminism and the German youth movement are central aspects. Concentrates on cultural matrix of early twentieth century.

HISTORIANS OF THE LIVING PAST (3) Man's attempt to understand his past. How contemporary life is affected by views of the past. Use of history to justify current policy. Theories of historical explanation such as ancient mythology, Christian and Marxist determinism, psycho-history, and quantitative history. Evaluation of historical evidence and historical methodology to understand conflicting information in complex society.



College of Arts and Sciences

DEAN Frank Turaj

Associate Dean for Undergraduate Affairs Ruth E. McFeeter

Associate Dean for Graduate Affairs and Research Nina M. Roscher

Associate Dean for Budget and Planning Robert L. Norris

Assistant Dean for Educational Policy Judith S. Sunley

Academic Counselor Carl E. Cook

Academic Counselor Ruth E. Early

Academic Counselor Dorothy A. Owens

The College of Arts and Sciences is committed to the intellectual growth of its students through a liberal and liberating education in the arts and sciences. The curriculum offers educational breadth and depth. It gives students an opportunity to sample the broad spectrum of human knowledge. At the same time its disciplinary and interdisciplinary degree programs provide opportunities for intensive study in the arts, humanities, natural sciences, and social sciences and also in the professional fields of education and communication. The college also offers study in pre-law, pre-medicine, pre-dentistry, and pre-engineering.

The College of Arts and Sciences nurtures creativity, scholarship, and research by faculty and students because it believes that education requires an atmosphere of active, original inquiry. The college emphasizes high quality instruction on all academic levels. Thus, the student, whether a freshman or an advanced graduate scholar, finds the opportunity for full intellectual growth.

The College of Arts and Sciences draws upon the educational resources of Washington, D.C.—social, cultural, artistic, humanistic, and scientific—to bring a unique dimension to the universal body of human knowledge. The city provides a wealth of distinguished visiting lecturers and myriad educational resources. The John F. Kennedy Center for the Performing Arts, the Library of Congress, the Smithsonian Institution, the National Academy of Sciences, the National Aeronautics and Space Administration, the National Archives, the World Bank, and foreign embassies are but a few examples of the educational resources of the nation's capital. These resources are utilized in a multitude of ways: through research projects, internships, off-campus classes, site visits, cooperative education programs, and courses specifically about the city and its institutions.

FACULTY The College of Arts and Sciences has a distinguished teacher-scholar faculty of 242 full-time professors and approximately 200 adjunct professors. Experts in their own fields, they have included ambassadors, advisors to presidents, world-renowned performers, national press figures, distinguished scientists, recognized artists and composers, pioneers in special education and learning theories, and consultants to major organizations, corporations, and even nations. Each year the college invites professors from other institutions, American and foreign, as well as artists in residence, to join the faculty.

For full-time faculty, see listing with description of each teaching unit.

Undergraduate Study

ACADEMIC ADVISEMENT The college challenges the student to assume substantial responsibility for defining his educational goals, yet provides him with careful professional guidance in responding to the challenge. The undergraduate plans his academic program with his faculty advisor or academic counselor, according to his interests, vocational plans, and academic maturity. A first-semester freshman is counseled by a detailed curriculum guide. His response to this information provides the basis for his first semester's course work. During freshman orientation immediately prior to the beginning of the semester, the entering student meets with his assigned advisor to discuss his academic program. Normally, this advisor counsels the student until he formally declares a major, at which time he selects or is assigned a faculty advisor in his major department. The transfer student goes to the department of his intended major for academic advisement. If the transfer student is undecided on a major, he is advised by a counselor in the Office of the Dean. Any student needing additional assistance from an academic counselor or dean of the College of Arts and Sciences makes an appointment through the receptionist, Gray Hall. Telephone: (202) 686-2440.

LIBERAL ARTS REQUIREMENTS The college has always stressed the importance of the liberal arts component of an education, a broad exposure to many disciplines—no matter what the student's area of specialization. The liberal arts component has now been expanded to provide the student with knowledge of the traditional areas of human thought and an understanding of the intellectual approach and method of academic disciplines outside that of his major, a University-wide distribution requirement. All students entering the University for Fall 1978, and thereafter, will be required to complete a minimum of six semester hours in each of three curriculum fields: natural and mathematical sciences, social sciences, and arts and humanities. The student must also complete a minimum of six more semester hours in one or both of the curriculum fields outside his major.

Note Continuing students who entered the College of Arts and Sciences from Spring 1976 through Summer 1978, prior to the introduction of the new distribution requirement, are to complete the following number and range of Liberal Studies Program courses from the areas of (1) arts and humanities, (2) natural sciences, and (3) social sciences as a requirement for a College of Arts and Sciences bachelor's degree: (a) 3 Liberal studies courses, one from each area, for students entering CAS with less than 8 course units credit; (b) 2 liberal studies courses, one from each area other than the area of the student's major, for students entering CAS with from 8 to 16 course units credit; (c) 1 liberal studies course from an area other than the area of the student's major for students entering CAS with from 16 to 24 course units credit; and (d) no liberal studies requirement for students entering CAS with 24 or more course units credit, or with an Associate of Arts degree. (This liberal studies requirement does not apply to CAS students majoring in elementary education because the elementary education program has its own extensive general education requirement.) The liberal studies requirement may be satisfied by taking Liberal Studies Program courses (prior to Fall 1978) or any courses designated as satisfying the University distribution requirement (beginning with Fall 1978).

FOREIGN LANGUAGE The College of Arts and Sciences encourages students to gain proficiency in at least one foreign language. It is natural for students embarking on a career in international relations, a study of the humanities, specialization in minority groups in the United States, and those with many other interests to concentrate on language study. Graduate study will often require proficiency in one or more foreign languages.

BACHELOR OF GENERAL STUDIES The Bachelor of General Studies (B.G.S.) degree with a major in General Studies is planned for offering by the College of Arts and Sciences in conjunction with the Division of Continuing Education. The degree is designed to serve the educational needs of adults who seek professional or personal advancement through either full or part-time study. The Division of Continuing Education provides academic advisement for students enrolled in this program.

As of Fall 1978, requirements for the B.G.S. are as follows: (1) English Composition and Reading I and II (or their equivalent). (2) University wide distribution requirement: A minimum of six semester hours or two courses in each of the three distributive areas (arts and humanities, natural and mathematical sciences, and social sciences), plus a minimum of six additional hours or two courses from among the three areas. (3) Main Areas of Concentration: Two declared areas of concentration from any academic unit in the University. Five courses in each area of concentration; at least two courses at the 300-level or above in each area of concentration. (4) Electives.

ASSOCIATE IN ARTS DEGREE Some high school graduates do not, or cannot, remain in college for four years, yet desire to complete a degree program. This situation, along with the development of the junior college, has contributed to the popularity of the Associate in Arts degree which may be

awarded after successful completion of two years' study or its equivalent. The college offers the Associate in Arts degree with a major in General Studies only.

To receive the associate degree, the student must fulfill the University English requirement, the University distribution requirement, and accrue a total of 60 semester hours with a cumulative grade-point average of C or better.

MAJORS By the end of the sophomore year, if not before, the CAS student is expected to declare an academic major. It is in this field that he pursues study in depth and synthesizes his academic knowledge. Major programs are described under departmental sections of the college. A student should become familiar with his departmental requirements and regulations as stated in this publication and on check sheets available in department offices.

Students interested in the natural sciences, mathematics, music, art, and physical education need to take specific courses in their freshman year if they intend to complete a degree in eight semesters. Such students should declare their interest as soon as possible and seek explicit counseling from the appropriate department.

Admission to the University does not automatically constitute admission to a major program. The student must process a formal declaration of major with a department. Using the Academic Change Form and an Administrative/Departmental Records Request Form, the student obtains an unofficial copy of his academic record from the Office of the Registrar and presents his credentials (permanent record and transcript evaluation, if applicable) to the department chairman (or his designate) for acceptance. At the same time he should ask to be assigned a major academic advisor who will supervise his studies until graduation.

Students who wish to change their majors from one department to another within the college must follow the same procedure. Students desiring to change from another school to the College of Arts and Sciences must apply through the dean's office.

INTERDISCIPLINARY MAJOR This program permits College of Arts and Sciences undergraduates to complete an interdisciplinary major according to their needs, abilities, and interests. A program is formulated with the advice and approval of three full-time faculty members from disciplines relevant to the student's defined emphasis, and is subject to the review of a University Senate Committee and the approval of the dean.

The initiative in all such degrees is with the student. It is the student who is responsible for determining the concept or theme around which the program is to center. With the three faculty members, he determines the requirements of his concentration and identifies a sequence of course work that fulfills his program's objectives. The program must be formulated in a written statement no later than the first semester of the junior year.

PREPROFESSIONAL PROGRAMS The college offers preprofessional curricula in engineering, law, medicine and dentistry, social work, theology, and physical therapy.

Students interested in a graduate degree program in social work often major in one of the social sciences, with particular emphasis on sociology and psychology.

Pre-theology students find the University's relationship with the Wesley Theological Seminary beneficial, and the Office of Campus Ministries directs an innovative program of religious activities which complements pre-professional studies in religion.

The college also offers lower-level courses required in a physical therapy curriculum, but the student must transfer by the end of his sophomore year to complete the program.

The preprofessional programs in engineering, law, and medicine and dentistry, are described in separate sections of this publication.

SPECIAL STUDY OPPORTUNITIES Affiliation with the Consortium of Universities of the Washington Metropolitan Area and the Marine Science Consortium greatly expands the educational horizon for the student. Also noteworthy is the American University Academy for the Performing Arts. (These programs are described in separate sections of this publication.)

FIRST YEAR MODULE PROGRAM IN HUMAN COMMUNICATION People's need to communicate and the manner in which this is accomplished are the underlying themes of the First Year Module in Human Communication. College of Arts and Sciences freshmen interested in the many facets and processes of human communication—from literature to language structure, theatre to ideology and values—may apply for the module. The program of instruction coordinates the course offerings of several departments around communication-related themes. Participants register for three communication-related courses, including Composition and Reading I, in addition to an interdisciplinary

seminar. Through collective inquiry and small group discussion, guest lectures and field trips, the seminar attempts to synthesize the various concepts.

LIVING-LEARNING CENTER Traditionally, classrooms have been used for learning and dormitories have been used for living. The Living-Learning Center integrates these two experiences into an enriched educational program for freshmen and sophomores who live on Anderson Hall Terrace, an area designated only for students of the center.

The small classes in the center's suite of rooms and the informal atmosphere of the dormitory encourage group interaction and a close relationship between students and faculty. Study facilities in the center provide participants with a convenient and comfortable place to study and meet friends. A student takes two courses offered by the center and selects other courses from those offered by the teaching units of the college or other schools.

INTERNSHIPS A variety of internship programs, which engage the student in practical experience in its most intimate terms, supports learning and on-the-job training. Interns work in numerous organizations in both the public and private sector in the Washington area. The growing number of internships in the college is a convincing testament not only to their popularity, but also to their success.

INDEPENDENT STUDY Independent reading courses and study projects are common options among College of Arts and Sciences students. Such enrollments allow a student to read a body of material under attentive but non-traditional supervision; engage in independent research projects; participate in educational programs off campus; and explore as far as his interests and preparation carry him. Independent study is sponsored by a faculty member with the approval of the chairman of the teaching unit. (See General Curriculum Information in this publication.)

ANNUAL WRITER'S CONFERENCE A six-day summer conference for teachers, students, and beginning and advanced writers is jointly sponsored by the Academy for the Performing Arts and the Department of Literature. The conference offers graduate and undergraduate credit and includes workshops in poetry and fiction, seminars in theatre, photo-journalism, creative process, translation, playwriting and evening readings by guest poets and novelists.

STUDY ABROAD The College of Arts and Sciences regularly sponsors study abroad programs. Typical opportunities have included: The Greek Experience; History of London and Research on History of London; International Communications Studies in London; Math and the Open Classroom at Oxford; Photography for the Practitioner (London); and Spanish Studies Institute in Spain. For further information contact Special Sessions, McKinley Building.

DEAN'S LIST In the College of Arts and Sciences, Dean's List citation requires that a student be registered for a letter grade for a minimum of 12 semester hours and that he complete all the courses for which he is registered by the end of the semester with a grade-point average of 3.75 or above.

DEPARTMENTAL HONORS Many departments offer exceptional students the opportunity to pursue honors work in the major. An interested upperclassman should consult his department faculty.

Graduate Study

The graduate programs of the College of Arts and Sciences are directed toward the development of highly competent scientists, sensitive teachers, creative and critical scholars. To achieve this objective the college provides an academic setting and climate favorable to the free interchange of ideas and the disciplined exploration and testing of the most seminal of these notions. The primary function of this collaborative interchange among mature and maturing scholars is to enhance the latter's understanding of, and sensitivity to, the spirit and styles of intellectual problems of his own choosing and actively to seek their solution. These self-defined problems and the creative inquiry they generate are the ultimate influence for the fashioning of the individual student's program of graduate study in the college. See the specific program descriptions under the individual departmental sections of the college that immediately follow this section. (Also, see Graduate Degree Requirements in this publication.)

American Studies

DIRECTOR Kay J. Mussell

FULL-TIME FACULTY

Associate Professor C. McLaughlin
Assistant Professor K. Mussell, B. Williams

American Studies is an interdisciplinary program in which students design their own plans of study, choosing courses from the offerings of the American Studies Program as well as other departments of the University. Areas of concentration are available in anthropology, art, Black studies, communication, economics, education, government, history, literature, music, performing arts, philosophy and religion, public administration, sociology, urban affairs, and women's studies. Students explore those areas of American society and culture that are of interest to them. Courses in the American Studies Program serve to aid students in the integration of the materials from their areas of concentration. An internship program is available; students may work in Washington, D.C., area agencies under University supervision during the junior and/or senior years.

Undergraduate Washington Semester Program in American Studies

ADMISSION TO THE PROGRAM This special one-semester program offers an integrated experience of Washington, D.C., through internships, research projects, and a course on the historical development and cultural life of the city. The program is open to students of The American University and students of affiliated institutions from across the country. Requirements for admission to the program are: (1) nomination by a Washington Semester faculty representative; (2) a minimum 2.50 grade-point average on a 4.00 scale; (3) at least one course dealing with American studies, history, government, thought, or literature; and (4) senior, junior, or second semester sophomore standing at the time of participation.

Set	02.306, 02.490, and 02.491.
Requirements	
Required Options	One elective chosen from regular course offerings at The American University.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Program in American Studies

ADMISSION TO THE PROGRAM A student who has earned a grade-point average of 2.50 in two courses related to the major qualifies for admission.

Set	02.200, 02.201, and 02.400.
Requirements	
Required Options	One of the following: 02.301, 02.302, 02.303, 02.304, 02.306, or 02.396 (nonrecurring selected topics); and one of the following: 02.401, 02.491, or 02.498 and 02.499.
Related Requirements	(1) 12 semester hours selected from a single department or related departments and dealing with some aspect of American life. (2) 9 semester hours selected from another single department or related departments also dealing with an aspect of American life. (3) 9 additional semester hours which may be distributed over several departments. These courses may deal with another aspect of American life or they may be supplementary or tool courses designed to support the work in the two major fields of concentration. Consult the director for the list of courses that may be used to satisfy the requirements for (1), (2), and (3) above.
Special Opportunities	Honors, internships.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in American Studies.

Courses of Instruction

Undergraduate Courses

02.200 THE AMERICAN DREAM (3) Changing American experience. Tension between the promise of the New World and the developing American institutions and lifestyles. Reflection of this tension in American life, thought, and art. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

02.201 THE URBAN-TECHNOLOGICAL ERA (3) Impact of urbanization and technological change on American life in the twentieth century. Emphasis on the effect upon ordinary American citizens as well as institutions. Discussion of selected issues and problems. May be taken for the social sciences distribution requirement. Usually offered every spring.

02.301 THE LITERARY VISION (3) Analysis of American culture from perspective of imaginative writers and social critics. Exploration of relationship of literary forms to American cultural experience. May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* One course in U.S. history, American literature, or American studies.

02.302 RELIGION IN THE AMERICAN ENVIRONMENT (3) Interaction of religion and American culture, making use of historical, literary, and sociological data, theological material, and research in contemporary religious phenomena. May be taken for the arts and humanities distribution requirement. *Prerequisite:* One course in U.S. history, American studies, or religion.

02.303 AMERICAN DECADES (3) Integrated study of a significant decade. Treatment of political and economic affairs, international relations, social change, literature, drama, music, and fine and popular arts. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. *Prerequisite:* One course in U.S. history, American literature, or American studies.

02.304 THE POPULAR ARTS IN AMERICA (3) Identification of significant forms of popular culture, analysis of their content, assessment of their importance, evaluation of their quality, and judgment of their cultural impact. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* One course in U.S. history, American literature, or American studies.

02.306 WASHINGTON, D.C.: THE CITY AND ITS INSTITUTIONS (3) Washington as national capital and residential city. Physical and historical development; political, cultural, social and neighborhood life. Students responsible for own transportation arrangements. May be taken for the social sciences distribution requirement. Usually offered every term.

02.390 INDEPENDENT READING COURSE IN AMERICAN STUDIES (1-6)*

02.400 COLLOQUIUM IN AMERICAN STUDIES (4) Reading, reports, and discussion of a collection of major books and articles in American studies field. Required of all junior majors in American Studies. Usually offered every spring.

02.401 SENIOR SEMINAR IN AMERICAN STUDIES (3) Introduction to research materials and methods. Students prepare and present a research paper for criticism by the seminar. Usually offered every fall.

02.490 INDEPENDENT STUDY PROJECT IN AMERICAN STUDIES (1-6)*

02.491 INTERNSHIP IN AMERICAN STUDIES (1-6) May be repeated for credit within the same term; topic may be the same. Usually offered every term.

02.498, 02.499 SENIOR YEAR HONORS I, II (1-6), (1-6)

Graduate and Advanced Undergraduate Courses

02.590 INDEPENDENT READING COURSE IN AMERICAN STUDIES (1-6)*

* See description under General Curriculum Information in this publication.

Anthropology

CHAIRMAN Ruth H. Landman

FULL-TIME FACULTY

Professor J. J. Bodine, K. Halpern, G. L. Harris (Emeritus), R. H. Landman, C. W. McNett, Jr., H. C. Moore, P. Nash (Emeritus), A. L. Vilakazi

Associate Professor G. L. Burkhart, W. L. Leap

Assistant Professor D. M. Rosen

Anthropology considers all human culture, past and present. It recognizes that human societies differ in meaningful ways and that our own is merely one among many. Anthropology deepens our understanding of ourselves and the problems of survival in a complex modern world. It creates a bond across the many disciplines that study the human condition. Part history, part natural science, and part social science, it is "the most scientific of the humanities, the most humanistic of the sciences." In a world where educated people recognize that the ways of others cannot remain a matter of indifference or contempt or antiquarian curiosity, anthropology is critically important.

With adequate preparation in archeology, cultural and social anthropology, and linguistics, the student can pursue special interests in subjects ranging from the study of prehistoric Indian life along the Potomac to the application of anthropological methods in urban communities.

Undergraduate Program in Anthropology

ADMISSION TO THE PROGRAM Formal admission to the major by the departmental undergraduate studies director requires a 2.00 grade-point average (on a 4.00 scale) and better than a 2.00 grade-point average in two anthropology courses.

Set Requirements 03.201, 03.202, 03.331, 03.334, 03.336, 03.337, 03.543 (quantitative/qualitative analysis), and 03.545.

Required Options Four courses chosen from at least three of the following groups. (1) *Area Analysis*: 03.332, 03.333, 03.335, 03.531, 03.536, and 03.539. (2) *Methodological Approaches*: 03.434, 03.543, 03.550, 03.551, 03.560, and 03.561. (3) *Comparative Analysis*: 03.430, 03.431, 03.433, 03.532, 03.537, and 03.538. (4) *Policy Issues*: 03.544.

Recommendations Students, through their department counselor, will be advised whether future career plans require a foreign language, a course cluster in a second discipline, field experience, or other special preparation.

Special Opportunities Field experiences through internships; work with the University computer software library and data storage and retrieval systems; honors in anthropology; and summer field schools in archeology and urban anthropology.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Anthropology.

Master's Program in Anthropology

ADMISSION TO THE PROGRAM A 3.00 undergraduate grade-point average; two academic letters of reference; an example of the applicant's work, e.g., term paper; and GRE scores, if available. An undergraduate major in anthropology is not required.

Course Requirements A minimum of 30 semester hours of approved graduate work, including 03.731, 03.732, and 03.737.

Tools One language or other tool of research, such as statistical or computer analysis, is strongly recommended.

Examinations One written examination in general anthropological theory and method.

Thesis A thesis or two substantial research papers prepared in conjunction with advanced courses or research seminars, and approved by a committee of two members of the faculty. Final approval by the chairman is required.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Anthropology.

NOTE ALSO A student from another discipline may take a comprehensive examination in anthropology (03.022 Cultural Analysis) with a minimum of nine semester hours in anthropology.

Master's Program in Applied Anthropology

ADMISSION TO THE PROGRAM A 3.00 undergraduate grade-point average; two academic letters of reference; an example of the applicant's work, e.g., term paper; and GRE scores, if available. An undergraduate major in anthropology is not required.

Course Requirements	A minimum of 30 semester hours of approved graduate work, including 03.532, 03.544 (principles of applied anthropology), 03.731, and 03.732.
Special Opportunities	Supervised experience in policy oriented research and in administration.
Examinations	One written examination stressing the relevance of general anthropology to applied work.
Thesis	A thesis or two substantial research papers prepared in conjunction with advanced courses or research seminars, and approved by a committee of two members of the faculty. Final approval by the chairman is required.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Applied Anthropology.

Doctoral Program in Anthropology

ADMISSION TO THE PROGRAM A 3.00 undergraduate grade-point average; two academic letters of reference; an example of the applicant's work, e.g., term paper; and GRE scores, if available. An undergraduate major in anthropology is not required.

Course Requirements	A minimum of 72 semester hours of approved graduate work is required, including 03.731, 03.732, 03.737, and 12 semester hours of 03.799. Students entering the Ph.D. program with an M.A. degree in anthropology earned elsewhere must complete 30 semester hours of course work in residence, as well as 12 semester hours of dissertation credit.
Special Opportunities	Several supervised teaching and research assistantships.
Tools	Two languages or one language and statistical or computer analysis.
Examinations	Four comprehensive examinations, including 03.006 (Anthropological Method and Theory); one in a main field (03.016 Ethnological Methods, 03.017 Archeological Methods, or 03.018 Linguistic Methods); one in an approved elective subfield of specialization (03.020); and one in an approved area of concentration (03.021). At least two examinations must be written and at least one must be oral.
Dissertation	A dissertation and an oral defense thereof. Field work is a component of dissertation research except in very unusual cases.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Anthropology.

NOTE ALSO A student in another discipline may take a comprehensive examination in anthropology with a minimum of 12 semester hours in anthropology.

Courses of Instruction

Undergraduate Courses

03.201 CULTURAL ANTHROPOLOGY (3) Exploring human cultures to document the critical importance of culture as the unique tool of human survival. The course provides the framework for a mature appreciation of cultural differences and similarities and thereby increases understanding of the complex world with which we must cope. May be taken for the social sciences distribution requirement. Usually offered every term.

03.202 HUMAN ORIGINS (3) The contributions that physical anthropology and archeology can make toward an understanding of the origins and development of humankind. Topics covered include genetics, the principles of evolution as applied to humans, the nonhuman primates and their

behavior, human fossils, and the archeology of the New and Old Worlds. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term.

03.331 HUMAN VARIATION (3) Human variety is a factor in our remarkable evolutionary success. Race, age, growth, sex, blood groups, disease, and other factors are studied in relation to their contribution to human variation. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring.

03.332 OLD WORLD PREHISTORY (3) Cultural development of humankind in Europe, Africa, and Asia from its earliest cultural beginnings through early metal ages. May be taken for the social sciences distribution requirement.

03.333 AMERICAN INDIAN ARCHEOLOGY (3) The prehistoric heritage of North America. The archeology of the Indians from their settlement of North America to the rise of Mexican civilizations is discussed from an ecological perspective. Areas covered include the Eastern Woodlands, the Plains, the Southwest, the Arctic, and Mexico-Central America. May be taken for the social sciences distribution requirement. Usually offered alternate springs.

03.334 MODERN ARCHEOLOGY (3) Aims and methods of archeology as a subfield of anthropology. Consideration of archeological evidence, data acquisition, dating, technical-typological analysis, and the means for interpreting archeological data for understanding cultural systems. Usually offered every fall. *Prerequisite:* 03.202, or permission of instructor.

03.335 CULTURES OF THE WORLD (3) A survey of selected cultures to probe the fascinating variety of life ways humans have fashioned to satisfy the basic needs of the human condition. Cultures of Africa, Asia, Oceania, North, Middle, and South America are explored. May be taken for the social sciences distribution requirement. Usually offered every fall.

03.336 SOCIAL STRUCTURE (3) Comparative study of social organization. Structure and function of political, religious, kinship, and economic arrangements in simple and complex societies. Emphasis on processes of conflict and integration, on ideas and beliefs as symbols of social relations, and on problems of individual choice in society. Concern with the language of structural analysis. May be taken for the social sciences distribution requirement. Usually offered every term.

03.337 ANTHROPOLOGY OF LANGUAGE (3) Examines language as a major cultural system reflecting the social structure of speech communities and the uses of this information for problem solving. Exploration of: regularity and variation within speech communities; the role of language in socialization; historical linguistics. Descriptive linguistics and transcription introduce students to field research methods. Usually offered every fall. *Prerequisite:* 03.201 or permission of instructor.

03.390 INDEPENDENT READING COURSE IN ANTHROPOLOGY (1-6)*

03.430 RELIGION IN CULTURE (3) Comparative study of religion in both Western and non-Western societies. Theoretical approaches are evaluated in the light of in-depth studies of selected religious systems. Topics usually include analysis of ritual behavior, mythology, magic, witchcraft, sorcery, and revitalization movements. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

03.431 PERSONALITY AND CULTURE (3) A course in psychological anthropology. The effect of culture on personality formation and of personality on culture change. Personality and culture as factors in mental and physical health. Psychocultural symbolism in dreams, myth, and religion. New approaches to the study of intracultural diversity and cognition. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* 03.201 or permission of instructor.

03.433 ANTHROPOLOGICAL ART IN WASHINGTON (3) Anthropological exploration of art and of crafts in the Museum of African Art, Dumbarton Oaks, the Textile Museum, the Smithsonian and other facilities. Utilization of special exhibits in other galleries and ethnic centers. Preparation for field studies through readings and slides. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

03.434 ANTHROPOLOGY OF URBAN LIFE (3) Anthropological studies of urban life and culture. Exploration of major theoretical currents in urban anthropology. Primary emphasis is upon the development of critical familiarity with the main ethnographic contributions of urban social scientists.

* See description under General Curriculum Information in this publication.

May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite*: 03.201 or permission of instructor.

03.490 INDEPENDENT STUDY PROJECT IN ANTHROPOLOGY (1-6)*

Graduate and Advanced Undergraduate Courses

03.530 HUMAN EVOLUTION (3) Primate variation in form and behavior; early humans in evolutionary and ecological perspective; fossil evidence; genetic, biological, and cultural factors. *Prerequisite*: 03.331 or permission of instructor.

03.531 ARCHEOLOGY (3) Analysis and interpretation of particular areas or topics relevant to modern archeology. Topics regularly offered are: the archeology of the Potomac Valley, the archeology of Meso-America, archeology applied to public needs, and the archeology of the historic period. May be repeated for credit within the same term; topic must be different. *Prerequisite*: 03.333, 03.334, or permission of instructor.

03.532 CULTURE CHANGE (3) Analysis of cultural processes involved in stabilization, conflict, and change. Differential learning, innovation, and variation. Change on the analytical levels of individuals, particular cultures, specific and general evolution. Culture contact, acculturation, revitalization, and modernization. Peasantry, poverty, and change. Anthropological insights for projecting and planning future developments. Usually offered every fall. *Prerequisite*: 03.201, one additional course in cultural anthropology, or graduate standing.

03.536 WORLD LANGUAGE AREAS (3) Focuses on one of the major language areas of the world in terms of language distribution, genetic relations of languages, archeological, historical, and ethnological factors affecting language distribution. The course is partly descriptive and partly devoted to research techniques. (Indo-Hittite, Pueblo Indian, Algonquian, and Chinese languages taught at various times.) May be repeated for credit, but not within the same term; topic must be different. *Prerequisite*: permission of instructor or a prior course in linguistics.

03.537 LANGUAGE AND CULTURE (3) Focus on the interrelationship between social and linguistic patterns in cultural systems. Sociolinguistic issues that are examined include linguistic variation and bilingualism as related to social strata, ethnic differences, colonialism, nation-building, etc. Ethno-semantic and ethnography of communication, and metalinguistic questions raised by Sapir and Whorf are explored. Usually offered every spring. *Prerequisite*: permission of instructor or a prior course in anthropology and/or linguistics.

03.538 PROBLEMS IN COMPARATIVE ANALYSIS (3) Controlled comparison of major social and institutional systems based on the considerable body of data and theory that now exists for such systems as law and politics, religion, economics, kinship, and myth and symbolism. Each time the course is taught it examines *one* of these. May be repeated for credit within the same term; topic must be different. Usually offered alternate falls or alternate springs. *Prerequisite*: at least one course in social anthropology or other appropriate discipline.

03.539 CULTURE AREA ANALYSIS (3) In-depth examinations of particular culture areas to provide insight into the special conditions that produced distinctive cultures in certain geographical regions. Examples include: North American Indians, South America, Mexico and Central America, North American Ethnic Groups, Europe, India, Southeast Asia, Africa, China, and Japan. May be repeated for credit within the same term; topic must be different. *Prerequisite*: 03.201 or permission of instructor.

03.543 ANALYTICAL METHODS (3) Practice in anthropological data analysis, stressing involvement in research. Regularly rotating topics (Quantitative and Qualitative Analysis, Data Banking, and Multivariate Analysis) concentrate on processing data with computer storage systems, and on learning how to utilize statistical publications. Ethnohistorical research methods, archeological laboratory practice, and subsistence technology are offered irregularly. May be repeated for credit within the same term; topic must be different. *Prerequisite*: permission of instructor or advisor.

03.544 APPLIED ANTHROPOLOGY (3) The role of anthropology in policy formulation and implementation of social and cultural change. The application of anthropological skills to problems relating to community self-determination, health services, education, urban and ethnic affairs, poverty, and crime. Rotating topics include: Principles of Applied Anthropology, Medical Anthropology, Anthro-

* See description under General Curriculum Information in this publication.

pology and Education, Anthropology of Development. May be repeated for credit within the same term; topic must be different.

03.545 DEVELOPMENTS IN ANTHROPOLOGICAL THEORY (3) Current theory and its historic roots. A capstone course drawing upon method and theory in archeology, linguistics, socio-cultural anthropology, and physical anthropology. Usually offered every spring. *Prerequisite:* seniors in anthropology or graduate standing.

03.550 ETHNOGRAPHIC RESEARCH METHODS (3) A series of research exercises. Students learn how to collect genealogies; gather censuses of research populations; conduct directed and non directive interviews; map research areas; work with photographic data; collect life histories; observe as participants; write research proposals; and evaluate data. Ethical and methodological field work problems are stressed throughout. Usually offered alternate springs.

03.551 LINGUISTIC RESEARCH METHODS (3) Research exercises that teach students how to collect and analyze linguistic data as a part of cultural analysis. Phonetic and phonemic transcription; morphemic and segmental analysis; use of tape recorders; devising appropriate questions to elicit data; transcribing from tapes. Students work with native speakers of familiar and unfamiliar languages. Usually offered alternate falls. *Prerequisite:* 03.337 or 03.737.

03.560 SUMMER FIELD SCHOOL: ARCHEOLOGY (3-9) Active participation in the excavation of an archeological site. Skill training varies depending on the site, but usually includes site surveying, archeological engineering, techniques of excavation, floral, faunal, and soil analysis, field laboratory practice, and on-site computer data processing. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every summer.

03.561 SUMMER FIELD SCHOOL: URBAN ANTHROPOLOGY (6-9) Intensive team organized field research on selected problems in the urban socio-cultural environment. Formal class work combined with supervised research provides basic ethnographic field training for undergraduates and graduates. Research problems vary from summer to summer, but emphasis is placed on social problems in the Washington, D.C., metropolitan area. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every summer.

03.590 INDEPENDENT READING COURSE IN ANTHROPOLOGY (1-6)*

Graduate Courses

03.690 INDEPENDENT STUDY PROJECT IN ANTHROPOLOGY (1-6)*

03.700 SEMINAR: PSYCHOLOGICAL ANTHROPOLOGY (3) The seminar deals with current issues in psychological anthropology and their historical background. Special consideration may be given to such selected topics as: psychological dynamics in relation to cultural dynamics; the individual and culture; expressive culture, especially as embodied in myth; cognitive anthropology and ethnopscychology. *Prerequisites:* graduate standing and permission of instructor.

03.701 SEMINAR: CULTURAL DYNAMICS (3) Evaluation of existing theories of culture change, their strengths, and inadequacies. Course content varies to reflect new directions focused upon in specific culture areas and/or theoretical issues. May be repeated for credit, but not within the same term; topic must be different. *Prerequisites:* graduate standing and permission of instructor.

03.702 SEMINAR IN URBAN ANTHROPOLOGY (3) Anthropological approaches to the study of urban culture. This includes the characteristics of migration processes, adaptations to urban life; urban subcultures. Comparisons of industrial and nonindustrial cities and of the urbanization experience in the Third World. *Prerequisites:* graduate standing and permission of instructor.

03.703 SEMINAR: ANTHROPOLOGY OF DEVELOPMENT (3) Special problems in international development. Development theories and policies analyzed in the light of in-depth studies of the impact of development on Third World peoples. Special attention paid to questions of rural development, urbanization, industrialization, population, labor migration, and ethical problems of directed culture change. *Prerequisites:* graduate standing and permission of instructor.

03.704 SEMINAR: SOCIAL ANTHROPOLOGY (3) Basic issues in the description, analysis, and comparison of social and cultural systems from a social structural perspective. Study of selected topics (kinship, ritual, politics, etc.) in the work of major anthropologists. Relation of problems posed

* See description under General Curriculum Information in this publication.

to the nature of field work and the mode of ethnographic reporting. *Prerequisites:* graduate standing and permission of instructor.

03.705 SEMINAR: PROCESSUAL INTERPRETATION (3) The application of archeological data to a selected topic of anthropological interest. Archeological data are applied to further anthropological studies of process. May be repeated for credit, but not within the same term; topic must be different.

03.731 PROSEMINAR: CULTURAL AND SOCIAL ANTHROPOLOGY (3) A graduate level overview of both the history of cultural and social theories and methodologies as well as contemporary concerns in anthropology. Normally required of all incoming graduate students. Consult the chairman. Usually offered every fall. *Prerequisite:* graduate standing.

03.732 PROSEMINAR: ARCHEOLOGY AND PHYSICAL ANTHROPOLOGY (3) A graduate level overview of modern archeology and physical anthropology. Focuses on archeological data: their nature, strengths and weaknesses, collection, analysis, and application to anthropological goals. Also considers the role of physical anthropology in the discipline. Normally required of all incoming graduate students. Consult the chairman. Usually offered every spring. *Prerequisite:* graduate standing.

03.737 PROSEMINAR: ANTHROPOLOGICAL LINGUISTICS (3) A graduate level overview of major topics in linguistic science as these relate to general anthropological method and theory. Normally required of all incoming graduate students. Consult the chairman. Usually offered every spring. *Prerequisite:* graduate standing.

03.797 MASTER'S THESIS SEMINAR (1-6)

03.799 DOCTORAL DISSERTATION SEMINAR (1-24)

Art

CHAIRMAN Helene M. Herzbrun

FULL-TIME FACULTY

Professor S. Baker (Emeritus), R. S. D'Arista, I. Eno (Emeritus), R. R. Gates (University Emeritus), M. D. Garrard, H. M. Herzbrun, A. S. Keck (University Emeritus), B. L. Summerford

Associate Professor N. Broude, M. Hirano, S. Pace, L. Penay, C. Ravenal, R. Shaffer, T. Turak

Assistant Professor A. E. Feltus, M. Graham, M. Oxman, L. B. Watkins

The Department of Art encompasses the creative activities of the fine arts (painting, sculpture, and printmaking), the artistic applications of design, and the theoretical and historical concerns of art history, thus enabling the students to gain a range of ideas and insights that will allow them to develop their interests and abilities to the fullest. A strong studio orientation focused on gaining facility with materials and familiarity with visual concepts from a faculty of exhibiting artists and practicing designers makes the art department, in effect, an art school within a university. An equally strong art history faculty and curriculum reinforces the department's concentration on artistic traditions and values and, at the same time, gives the art history major a breadth of understanding and a sense of purpose through its programmatic interchange with art-in-the-making. Immediate experience with art masterpieces of the past and present, provided by the proximity of the University to Washington's great museums and art collections, brings art and art history students into vital contact with artistic tradition and experiment, and makes study and training relevant and meaningful.

Undergraduate Program in Studio Art

TRACKS Painting, Sculpture, and Printmaking.

ADMISSION TO THE PROGRAM Departmental approval after satisfactory completion (C or better) of 12 semester hours of studio. 18 hours of the last 24 semester hours in the major program must be taken at this university (12 of 18 hours must be in studio; 6 may be in related fields or studio).

Set Requirements A total of 21 semester hours to include three hours each of 05.104 and 05.120; 9 hours of 05.360; 07.100 and 07.101.

Required Options A total of 33 semester hours to include 12 hours from one and 6 additional hours from another of the following areas of concentration:

painting (05.320), sculpture (05.340), or printmaking (05.520, 05.364, and 05.365); 9 additional hours from 05.320, 05.340, 05.344, 05.360, 05.364, 05.365, 05.520, and 05.560; and 6 additional hours of art history.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Studio Art.

Undergraduate Program in Fine Arts

TRACKS Painting, Sculpture, and Printmaking.

ADMISSION TO THE PROGRAM Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview. Approval of admission depends entirely on faculty action resulting from this review. Consideration for B.F.A. is permitted only after 18 semester hours or three semesters studio work at The American University, but before beginning the senior year.

Set Requirements A total of 24 semester hours to include 6 hours from 05.104 and 05.120; 9 hours of 05.360; 3 hours of 05.560; and 07.100 and 07.101.

Required Options A total of 48 semester hours to include 21 hours from one of the following concentrations: painting (05.320), sculpture (05.340), or printmaking (05.364, 05.365, and 05.520); 12 additional hours in one of the other or 6 additional hours in each of the other concentrations; 9 additional hours from 05.320, 05.340, 05.344, 05.360, 05.364, 05.365, 05.520, and 05.560; and 6 additional hours of art history.

Related Requirements At least 36 semester hours from outside the Department of Art.

Recommendations Students who contemplate completing the art education program or a double major will not be able to complete a B.F.A. program within the 120 semester hour limit.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Fine Arts with a major in Fine Arts.

Undergraduate Program in Art Education

ADMISSION TO THE PROGRAM Admission is based on a B average in all major courses and portfolio review during the junior year of studio work. 18 hours of the last 24 semester hours in the major program must be taken at this university (12 of the 18 hours must be in studio; 6 may be in related fields or studio).

Set Requirements A total of 36 hours to include 3 semester hours from each of the following: 05.104, 05.120, 05.320, 05.340, 05.344, 05.364 or 05.365, 05.370, 05.371, 07.100, and 07.101; and 6 hours of 05.360.

Required Options A total of 15 semester hours to include 9 additional hours concentration from one of the following: painting (05.320), sculpture (05.340), or printmaking (05.364 or 05.365, 05.520); and 6 additional hours of art history.

Related Requirements A total of 12–15 semester hours to include 3 hours from each of the following: 21.300, 21.320, and 57.100; and 9–12 hours of 21.446.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Art Education.

Undergraduate Program in Design

ADMISSION TO THE PROGRAM Departmental approval after satisfactory completion (C or better) of 12 semester hours of design. 18 hours of the last 24 semester hours in the major program must be taken at this university (12 of the 18 hours must be in design; 6 may be in related fields or design).

Set Requirements 30 semester hours from 05.348, 05.349, 05.350, 05.351, 05.352, 05.353, 05.356, 05.357, 07.100, and 07.101.

Required Options A total of 21 hours to include 6 semester hours from 05.358 or appropriate 05.396 (nonrecurring selected topics) in design or 05.491, if departmentally approved; 9 semester hours in studio from 05.104, 05.120, 05.320, 05.360, and 05.364 or 05.365; and 6 additional semester hours in art history.

Related Requirements	17.343.
Special Opportunities	Internships in design are available to exceptionally qualified seniors with departmental approval.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Design.

Undergraduate Program in Art History

ADMISSION TO THE PROGRAM Departmental approval after satisfactory completion (C or better) of 12 semester hours of art history. 18 hours of the last 24 semester hours in the major program must be taken at this university (12 of 18 hours must be in art history; 6 may be in related fields or art history).

Set Requirements	07.100, 07.101, and 07.500. A minimum of 6 hours out of the total 36 semester hours in art history must be at 500-level.
Required Options	3 semester hours from each of four periods: (1) <i>Ancient</i> : 07.301, 07.302 or appropriate 07.396 (nonrecurring selected topics), 07.520, and 07.596; (2) <i>Medieval</i> : 07.303, 07.504, or appropriate 07.396, 07.520, and 07.596; (3) <i>Renaissance</i> : 07.304, 07.512, 07.513, 07.514, 07.516 or appropriate 07.396, 07.520, and 07.596; and (4) <i>Modern</i> : 07.306, 07.507, 07.508, 07.510, 07.511, 07.518, 07.532, 07.534, or appropriate 07.396, 07.520, and 07.596. Also 15 additional semester hours from any art history offerings not used to satisfy above distribution requirement. 6 semester hours from 05.104, 05.120, 05.320, 05.340 and 05.360.
Related Requirements	12 semester hours at 300-level or above from one of the following fields: American studies, anthropology, history, literature, music, and philosophy. (Course selections must be coherently related to the major and/or each other and must be faculty approved.)
Recommendations	Students contemplating graduate study in art history are advised to attain a reading knowledge of French, Italian, or German to the intermediate level (or equivalent of 12 semester hours of college level).
Special Opportunities	A major program track in American Art/American Studies is possible. It requires at least a 12 semester hour concentration in American art and 12 semester hour related course requirement in American studies. Internships in local agencies, museums, galleries, and libraries are permitted with departmental approval, but are limited to 3 semester hours unless taken as electives.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Art History.

Master's Program in Art History

ADMISSION TO THE PROGRAM Consideration for admission is open to students who hold a Bachelor of Arts degree from a regionally accredited institution. Two letters of recommendation are required if the undergraduate degree was not earned in the department. Students whose records indicate a strong aptitude for graduate study, but whose undergraduate major was not in art history, will be required to complete a minimum of 18 semester hours at the undergraduate or graduate level in art history in addition to the 30 semester hours of graduate course work required for the degree. Part-time students are advised that an M.A., which takes a minimum of three semesters of full-time study, cannot be completed at night only or in summer only.

Course Requirements	Minimum 30 semester hours of approved graduate work, including at least 9 hours in field of specialization and 6 hours in master's research seminars (3 hours of which must be in field of specialization). 3 semester hours of 07.500 is required if an equivalent course was not taken at an undergraduate level. Remaining courses distributed according to individual program and needs. 6 additional semester hours of course work are required if museum training and/or more than one internship is selected.
Recommendations	<i>Curriculum Model I: General History of Western Art</i> A discipline-oriented approach for students who intend to continue for a Ph.D.

elsewhere or to teach at the high school or junior college level. M.A. program would emphasize a range of art history courses with a conventional period specialization.

Curriculum Model II: Applied Research in Art History A practical-applications approach with intensive training in research and writing for students who seek special training for museum work, architectural survey, historic preservation research, etc. M.A. program could include related course work in history, culture, American studies, etc., as well as internships and field experiences.

Curriculum Model III: Concepts of Art and Art History A problem-oriented approach aimed at depth of understanding of art and methods of art history, for students interested in connoisseurship and critical analysis, generally with an emphasis in painting. M.A. program would include fine arts courses such as Materials and Techniques of Painting (for which some studio experience is required) and Criticism of Painting, as well as independent reading courses in criticism, theory, or historiography.

Special Opportunities	Program in historic preservation with internship option is offered regularly for the especially qualified student. Individually structured programs in museum training and internships in local museums, galleries, agencies, or libraries are available for qualified students with departmental approval.
Advancement to Candidacy	Student must file for advancement to candidacy after completion of 18 semester hours indicating (1) satisfactory gradepoint average of B or better and (2) satisfactory completion of the tool requirement (see below).
Tools	Each applicant must show evidence of having satisfactorily completed the intermediate level of French, German, or Italian, or demonstrate a reading knowledge of one of these languages through examination.
Examinations	Two written examinations, one in 07.003 History of Western Art (Greek to Modern) and one in student's specialized field of art history: 07.009 Medieval Art, 07.010 Renaissance Art, 07.011 Baroque and Rococo Art, 07.012 Nineteenth and Twentieth Century Art, 07.020 Art in the United States, or 07.021 Architecture.
Thesis	Satisfactory completion of two substantial research papers in two masters thesis seminars; one must be in student's field of specialization.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Art History.

Master's Program in Fine Arts

MAJORS Painting, Sculpture and Printmaking. While the department's orientation is strongly toward painting, it is possible for a limited number of students with special permission to do the M.F.A. program in sculpture or in printmaking (woodcut and etching). Students should consult the department on the status of the sculpture and printmaking majors prior to submitting an application for admission.

ADMISSION TO THE PROGRAM Consideration for admission is open to students who hold Bachelor of Arts (with fine arts major) or Bachelor of Fine Arts degrees from a regionally accredited institution. Two letters of recommendation are required if the undergraduate degree was not earned in the department. With special permission, applicants without B.A. or B.F.A. degrees or without a major in fine arts, but with outstanding artistic or professional qualifications, may be admitted.

Each applicant must submit a portfolio of 10 drawings (including figure studies) and 4 to 6 paintings (and/or prints, if relevant) to the department's Admission Review Committee. Slides or photographs may be submitted in lieu of original paintings if shipping is difficult, but original drawings must be submitted in every case. A resume of the applicant's art background (academic and professional) should be included in the portfolio. Portfolios should be sent directly to the Department of Art. The Department of Art cannot be liable for loss or damage or for any transportation or mailing expense. Additional studio courses (or art history) may be required to attain maturity and proficiency and to satisfactorily complete the comprehensives and thesis. The number and kinds of additional courses will be stipulated at the time of admission.

Course Requirements	A minimum 36 semester hours of approved graduate work as follows: 6 hours in 05.792; 3–6 hours in 05.792 or 05.794; 3–6 hours in 05.560; 3 hours in 05.533 (unless equivalent taken at undergraduate level); 3 hours in 05.700; 3 hours from 05.792, 05.794, 05.560 or 05.520, or 05.521; 9 hours in graduate art history (at least 6 hours in history of painting), and 6 hours in 05.797. Students entering the program on a part-time basis are advised to take no less than 12 hours each year (including summers). All students are required to take at least two courses in their thesis field each calendar year they are enrolled, only one of which may be taken during the summer sessions.
Examinations	One written examination: 05.010 Theory and Techniques of Painting (may be modified for those doing thesis in graphic art).
Thesis	A series of original works of art in the student's field of concentration (painting, sculpture, or printmaking) executed independently by the student in consultation with a thesis committee of two or three faculty members. Written and photographic documentation of approved thesis is also required.

DEGREE OBJECTIVE Students receive a degree of Master of Fine Arts with a major in Painting, Sculpture, or Printmaking.

Courses of Instruction

Undergraduate Courses

STUDIO

05.104 INTRODUCTION TO VISUAL FORM (3) Develops visual perception and presents formal and theoretical background necessary for informed understanding of painting, sculpture, architecture. Lectures, discussion groups from visual material. May be taken for the arts and humanities distribution requirement. Usually offered every term.

05.120 FUNDAMENTALS OF DRAWING AND PAINTING (3) Basic training in translating perception into the formal language of painting and drawing. Course time is divided between the two disciplines, but emphasis is on painting. May be taken for the arts and humanities distribution requirement. Usually offered every term.

05.150 STUDIO WORKSHOP (1) Studio training in media of student's choice. Instructor provides theoretical and technical direction in an informal format. May be repeated for credit, but not within the same term; topic may be the same. May be taken for the arts and humanities distribution requirement. Usually offered every term.

05.320 CREATIVE PAINTING (3) Studies in color, composition, and drawing from still life and figure. Individually assigned projects. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* 05.120 or equivalent.

05.340 SCULPTURE (3) Problems and principles of sculpture. Acquaintanceship with tools, techniques, and materials for plastic expression. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

05.344 CERAMICS (3) Explores basic principles of working with clay. Instruction both in wheel and other methods of making pottery. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

05.360 DRAWING (3) Structural drawing from the human figure. Movement, expression. Range of techniques and media. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

05.364 PRINTMAKING: WOODCUT AND SURFACE PRINT (3) Exploration of woodcut and relief print as media of creative expression. *Prerequisites:* Two drawing or one drawing and one design course. Emphasis on experimentation and control. Usually offered every term.

05.365 PRINTMAKING: SILKSCREEN (3) Exploration of serigraphy. Intensive work with different techniques. Usually offered every summer. *Prerequisites:* 05.364 or two drawing courses or one drawing and one painting or design course.

DESIGN

05.348 DESIGN TECHNIQUES I (3) Exploration and analysis of graphic means and structures for design presentation. Design Techniques I and II are independent and need not be taken in sequence. Usually offered every fall. *Prerequisites:* 05.350 and 05.351 or concurrent registration.

05.349 DESIGN TECHNIQUES II (3) Exploration and analysis of graphic means and structures for design presentation. Design Techniques I and II are independent and need not be taken in sequence. Usually offered every spring. *Prerequisites:* 05.350 and 05.351 or concurrent registration.

05.350 DESIGN FUNDAMENTALS: COLOR (3) Study of properties of color, color juxtapositions, and interaction. Usually offered every term.

05.351 DESIGN FUNDAMENTALS: TWO-DIMENSIONAL (3) Fundamentals of space, color, and form relationships in graphic design. Usually offered every term.

05.352 LETTERING AND TYPOGRAPHY I (3) Theory and analysis of letter forms as design and symbol. Study of type faces, arrangement, and setting. Lettering and Typography I and II are independent and need not be taken in sequence. Usually offered every fall. *Prerequisite:* 05.351 or permission of instructor.

05.353 LETTERING AND TYPOGRAPHY II (3) Study of type faces, the arrangement of words, and its particular application to advertising design. Lettering and Typography I and II are independent and need not be taken in sequence. Usually offered every spring. *Prerequisite:* 05.351 or permission of instructor.

05.356 ADVANCED DESIGN I (3) Experimentation and practice in design problems relating to visual communication; emphasis on techniques and solutions of professional problems. Usually offered every fall. *Prerequisites:* 05.350, 05.351 and 05.348 or 05.349 or permission of instructor.

05.357 ADVANCED DESIGN II (3) Practical consideration and execution of complex design problems involving previous design training. Continuation of 05.356. Usually offered every spring. *Prerequisite:* 05.356 or permission of instructor.

05.358 THREE-DIMENSIONAL DESIGN (3) Examination of three-dimensional and structural concepts. Organization of space developed through constructions in a variety of materials. Usually offered every fall.

ART EDUCATION

05.370 CRAFTS FOR ART TEACHERS (3) Exploration of various two-dimensional and three-dimensional crafts appropriate to teaching art at secondary level through studio practice. Art majors only. Usually offered every fall. *Prerequisites:* junior or senior standing with four studio courses and portfolio review.

05.371 METHODS OF TEACHING ART IN ELEMENTARY AND SECONDARY SCHOOLS (3) Theoretical and practical considerations of teaching art at secondary level through lecture, discussion, and observation. Meets for six weeks prior to nine weeks of student teaching. Must be taken in senior year in conjunction with 21.446. Art majors only. With departmental permission student may elect to combine elementary and secondary theory in two six week practice teaching sessions. Usually offered every spring. *Prerequisites:* 05.370 and admission to 21.446.

05.380 TEACHING ART IN ELEMENTARY SCHOOLS (3) Methods and techniques of teaching art as part of regular elementary school instruction. *Prerequisite:* limited to education majors in elementary school program or permission of department.

05.390 INDEPENDENT READING COURSE IN ART (1-6)*

05.490 INDEPENDENT STUDY PROJECT IN ART (1-6)*

05.491 INTERNSHIP (3) Usually offered every term. *Prerequisites:* approval of advisor and chairman.

ART HISTORY

07.100 SURVEY OF ART I: ANCIENT AND MEDIEVAL (3) Illustrated historical introduction to architecture, sculpture, and painting presented as an objectification and record of man's major beliefs and

* See description under General Curriculum Information in this publication.

ideas until 1500. Field trips. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

07.101 SURVEY OF ART II: RENAISSANCE AND MODERN (3) Illustrated historical introduction to architecture, sculpture, and painting in Western world between 1500 and 1950. Field trips. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 07.100 recommended but not required.

07.301 GREEK ART (3) Greek art and architecture from the Archaic period through the Hellenistic. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

07.302 ROMAN ART (3) Art and architecture of Rome from the Republic through the Empire. May be taken for the arts and humanities distribution requirement. *Prerequisite:* 07.100 or 07.301.

07.303 MEDIEVAL ART (3) Survey of Medieval art covering Early Christian, Byzantine, Romanesque, and Gothic developments in architecture, painting, and sculpture. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

07.304 ASPECTS OF RENAISSANCE ART (3) Changing topics with focus on key concepts or developments in Western art, both Italian and Northern European, 1400–1700. Using "Renaissance" in its broadest temporal and geographic sense permits a perspective from which fundamental historical art changes can be viewed, e.g., from Renaissance to Baroque, north-south polarities, the rise of urban design, and other kinds of shifts in patronage, iconography, or style. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

07.306 MODERN ART (3) Major trends in painting, sculpture, and architecture, from European neo-Classicism to contemporary American movements. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

07.307 ORIENTAL ART: AN INTRODUCTORY SURVEY (3) Highlights of Asian art, with emphasis on the artistic achievements of India, China, and Japan; interrelationships and influences; cultural, religious, and historical factors. May be taken for the arts and humanities distribution requirement.

07.309 ORIENTAL ART: JAPANESE (3) Main currents and monuments of Japanese art from prehistoric to modern times. May be taken for the arts and humanities distribution requirement.

07.310 AFRICAN ART (3) Familiarizes the student with the heritage of sub-Saharan Africa. Emphasis on advanced civilizations of the upper Nile, Ethiopia, and Nigeria. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

07.311 AFRO-AMERICAN ART (3) Exploration of role of Black visual artist in America from colonial times to present. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

07.312 SOURCES OF MODERN DESIGN (3) Development of design principles from the seventeenth century to the modern period, attempting to relate the history of Western design to the experience of the design student. Emphasis on the minor arts and relationships to painting, sculpture, and architecture where relevant. Usually offered every spring.

07.390 INDEPENDENT READING COURSE IN ART HISTORY (1–6)*

07.490 INDEPENDENT STUDY PROJECT IN ART HISTORY (1–6)*

07.491 INTERNSHIP (3) Usually offered every term. *Prerequisites:* approval of advisor and chairman.

Graduate and Advanced Undergraduate Courses

STUDIO

05.520 TECHNIQUES OF ETCHING (3) Investigation of etching and its various techniques. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisites:* 05.364 or 05.365 or four courses in drawing.

05.533 MATERIALS AND TECHNIQUES OF PAINTING (3) Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, underpainting, glazing, and emulsions

*See description under General Curriculum Information in this publication.

for tempera, etc. Usually offered every fall. *Prerequisites*: four painting courses or permission of instructor.

05.560 DRAWING (3) Experiments in the creative and expressive quality of drawing. Personal creative expression. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite*: admission to graduate program in fine arts or permission of instructor.

05.590 INDEPENDENT READING COURSE IN ART (1-6)*

ART HISTORY

07.500 APPROACHES TO ART HISTORY (3) Required for undergraduate art history majors. Recommended for graduate art history students. Readings, discussion, and written work based on selected topics. Consideration of problems in formal analysis, style, iconography, and quality. Attention given to critical interpretation and writing research papers in art history. Usually offered every fall. *Prerequisites*: four art history courses or graduate status.

07.501 BAROQUE PAINTING (3) Seventeenth century painting in Italy, Spain, France, the Netherlands, and England. Emphasis on Caravaggio, Rubens, Rembrandt, Vermeer, Poussin, and Velasquez. Usually offered alternate falls. *Prerequisites*: two art history courses including 07.101 or equivalent.

07.504 GOTHIC ART (3) Architecture, painting, sculpture, manuscript illuminations, and stained glass from twelfth to fifteenth centuries in Europe. *Prerequisites*: two art history courses including 07.100 or equivalent.

07.506 RENAISSANCE SCULPTURE (3) Italian sculpture from 1400 to 1700 with stress on achievements of Donatello, Michelangelo, and Bernini. *Prerequisites*: two art history courses including 07.101 or permission of instructor.

07.507 MODERN SCULPTURE (3) Changes in sculpture from 1700 to present with stress on innovations of Rodin, Brancusi, Moore, and American abstractionists. *Prerequisites*: two art history courses including 07.101 or permission of instructor.

07.508 PAINTING: ROCOCO THROUGH IMPRESSIONISM (3) Painting in eighteenth and nineteenth century Europe: Counter-Rococo currents in the late eighteenth century, including neo-Classicism and proto-Romanticism, with a detailed study of the art of David and Goya; French Romanticism in the art of Gericault and Delacroix; Romantic landscape painting in England, Germany, and France with emphasis on Turner, Constable, Friedrich, Corot, and the Barbizon School; the Realism of Courbet; Manet and Degas; and Monet and the French Impressionists. Usually offered alternate springs. *Prerequisites*: two art history courses including 07.101 or equivalent.

07.510 PAINTING: POST-IMPRESSIONISM TO EXPRESSIONISM (3) Reactions to Impressionism in the 1880's and 1890's in France and elsewhere in Europe. Emphasis on the art of Seurat and the neo-Impressionists, Cezanne, Gauguin and the Symbolists, and Van Gogh. Also studied are Toulouse-Lautrec, Bonnard, Vuillard, Munch, Ensor, and Klimt. Art Nouveau and Expressionism are considered as post-impressionist phenomena, and their impact on the early work of Matisse and Picasso are assessed. Usually offered every fall. *Prerequisites*: two art history courses including 07.101 or equivalent.

07.511 PAINTING: CUBISM TO THE PRESENT (3) After a close analysis of the development of Cubism in the art of Picasso and Braque, the work of the Cubist followers, including Gris, Leger, Delaunay, and the Italian Futurists are discussed. Also studied are the nonobjective styles of Kandinsky and Mondrian, and the Dada and Surrealist movements with emphasis on the work of Duchamp, Miro, and Picasso. American art since 1945 reviewed and its roots in earlier traditions of European modernism considered. Usually offered every spring. *Prerequisites*: two art history courses including 07.101 or equivalent.

07.512 NORTHERN RENAISSANCE PAINTING (3) Painting in France, Germany, and the Netherlands from the late fourteenth through the sixteenth centuries. Emphasis upon major artists such as Jan van Eyck, Durer, Holbein, and Bruegel. *Prerequisites*: two art history courses including 07.101 or equivalent.

* See description under General Curriculum Information in this publication.

07.513 RENAISSANCE PAINTING: GIOTTO TO PIERO DELLA FRANCESCA (3) Developments in the various artistic centers examined in respect to the formulation and solution of Renaissance pictorial problems from 1300–1475. Usually offered every fall. *Prerequisites:* two history courses including 07.101 or equivalent.

07.514 RENAISSANCE PAINTING: LEONARDO TO CARAVAGGIO (3) Development of High Renaissance, Mannerist, and proto-Baroque styles; major artistic personalities: 1475–1580. *Prerequisites:* two art history courses including 07.101 or equivalent. Usually offered every spring.

07.515 GRAPHIC ART (3) Unique qualities of graphic art (drawing and prints). Renaissance to present. *Prerequisites:* two art history courses including 07.101 or equivalent.

07.516 THE ARCHITECTURE OF HUMANISM 1400–1700 (3) History of architecture of the Renaissance, Baroque, and Rococo periods emphasizing the humanistic traditions of Western Europe as expressed in major buildings and in city planning. Major architects are considered. Usually offered alternate springs. *Prerequisites:* two art history courses including 07.101 or equivalent.

07.518 NINETEENTH AND TWENTIETH CENTURY ARCHITECTURE (3) Modern period architecture; encounter of architecture with machine age. Usually offered alternate falls. *Prerequisites:* two art history courses including 07.101 or equivalent.

07.520 SEMINAR IN ART HISTORY (3) Reports and critical discussion of research papers on topic announced for semester. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisites:* six art history courses and permission of instructor.

07.531 PAINTING AND SCULPTURE IN THE UNITED STATES UNTIL 1900 (3) Painting and sculpture in the United States from the colonial period to 1900 with attention to relationships with European art. Usually offered every fall. *Prerequisites:* two art history courses including 07.101 or equivalent or permission of instructor.

07.532 PAINTING AND SCULPTURE IN THE UNITED STATES 1900 TO THE PRESENT (3) Painting and sculpture in the United States from 1900 to the present with attention to relationships with European art. Usually offered every spring. *Prerequisites:* two art history courses including 07.101 or equivalent or permission of instructor.

07.533 AMERICAN ARCHITECTURE UNTIL 1870 (3) Development of American architecture until about 1870, relating it to European developments. Usually offered alternate falls. *Prerequisites:* two art history courses including 07.101 or equivalent or permission of instructor.

07.534 AMERICAN ARCHITECTURE: 1870 TO THE PRESENT (3) American architecture and city planning from the post-Civil War period to the present. Usually offered alternate springs. *Prerequisites:* two art history courses including 07.101 or equivalent or permission of instructor.

07.590 INDEPENDENT READING COURSE IN ART HISTORY (1–6)*

Graduate Courses

STUDIO

05.690 INDEPENDENT STUDY PROJECT IN ART (1–6)*

05.691 INTERNSHIP (3) Usually offered every term. *Prerequisites:* approval of advisor and chairman.

05.700 CRITICISM OF PAINTING (3) Theoretical and philosophical consideration of painting. Detailed analysis of artistic works. Lecture and slides. Usually offered every spring. *Prerequisite:* admission to graduate program in fine arts or permission of instructor.

05.792 ART LABORATORY: PAINTING (3) Intensive investigation of ideas and techniques in painting. Emphasis on experimentation leading to development of individual style. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* admission to graduate fine arts program or permission of instructor.

* See description under General Curriculum Information in this publication.

05.793 ART LABORATORY: SCULPTURE (3) Intensive investigation of sculpture with emphasis on experimentation leading to individual style. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* admission to graduate program in fine arts or permission of chairman.

05.794 DIRECTED PROJECT IN FINE ARTS (3) Student works independently in thesis field (painting, sculpture, graphics) under faculty supervision. Weekly group critiques. Qualitative grade given. May be repeated once for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* open only to M.F.A. candidates who have completed six hours of 05.792 or 05.793, approval of chairman required.

05.797 MASTER'S THESIS SEMINAR (3-6) Usually offered every term. *Prerequisite:* M.F.A. candidate with permission of chairman.

ART HISTORY

07.690 INDEPENDENT STUDY PROJECT IN ART HISTORY (1-6)*

07.691 INTERNSHIP (3) Usually offered every term. *Prerequisite:* approval of advisor and chairman.

07.792 RESEARCH SEMINAR IN ART HISTORY (3) Limited to one of six areas. Specific topics announced each semester. Areas: (1) Medieval Art, (2) Renaissance Art, (3) Baroque and Rococo Art, (4) Nineteenth and Twentieth Century Art, (5) American Art, and (6) Architecture. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisites:* open only to M.A. candidates with 12 hours of graduate art history with B average. Permission of chairman.

07.793 DIRECTED RESEARCH IN ART HISTORY (3) Topic arranged. Must be in fields listed under 07.792, but not in field covered in 07.792 that semester. Usually offered every term. *Prerequisites:* open only to M.A. candidates with twelve hours of graduate art history with B average. Permission of chairman.

Biology

CHAIRMAN Richard H. Fox

FULL-TIME FACULTY

Professor E. J. Breyere, S. O. Burhoe (Emeritus)

Associate Professor R. R. Anderson, W. C. Banta, R. H. Fox, C. R. Wrathall

Assistant Professor M. A. Champ, B. J. Clarke, S. Grebe, W. Schoenfisch

The Department of Biology offers the student a broad range of bio-science courses with in-depth coverage from the disciplines of developmental and cell biology, genetics, molecular biology, microbiology, physiology and anatomy, plant science, ecology, and marine sciences (environmental science). Academic degree programs developed from among courses in these areas lead to the Bachelor of Arts in Biology, Bachelor of Science in Biology, Bachelor of Science in Microbiology, Bachelor of Science in Medical Technology. The department also offers a Master of Science in Biology degree. Programs in distributed science with emphasis in biology and leading to the degree of Bachelor of Science may be arranged. Other interdisciplinary study programs and the marine science program, combining University courses with those offered through the Marine Science Consortium, (see that section) are available. Bachelor of Science programs in the department adequately prepare students for professional programs at the graduate school level for medicine, dentistry, veterinary medicine, and optometry. Students in the Bachelor of Science in Microbiology program are eligible for the Registry of Microbiology Certification Examination.

MARINE SCIENCE CONSORTIUM See the Marine Science section in this publication.

Undergraduate Program in Biology: Bachelor of Arts

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Admission is through formal declaration of major.

Set Requirements	09.101, 09.102, 09.230, 09.310, 09.330, 09.331, 09.356, 09.358, and 09.523.
Required Options	One biology elective from 09.100–09.500.
Related Requirements	15.120, 15.121, 15.130, and 15.131.
Special Opportunities	Internships.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Biology.

NOTE ALSO See the marine science courses listed under Marine Science in this publication.

Undergraduate Program in Biology: Bachelor of Science

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Admission is through formal declaration of major.

Set Requirements	09.101, 09.102, 09.250, 09.304, 09.356, 09.357 and 09.358.
Required Options	Three biology electives from 09.200–09.500.
Related Requirements	15.310, 15.312, 15.320, 15.322, 42.202, 41.111, 51.220, 51.221, 51.222, and 51.223.
Recommendations	One course in biochemistry.
Special Opportunities	Internships; preparation for professional schools (medical, dental, etc.).

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Biology.

NOTE ALSO See the marine science courses listed under Marine Science in this publication.

Undergraduate Program in Microbiology

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Admission is through formal declaration of major.

Set Requirements	09.101, 09.102, 09.250, 09.340, 09.341, 09.411, and 09.500.
Required Options	09.541 or 09.543; 09.310 or related course from the Consortium of Universities; one other biology course at the 200-level or above.
Related Requirements	15.310, 15.312, 15.320, 15.322, 15.350, 15.351, 41.111, 51.220, 51.221, 51.522 and 51.523.
Recommendations	Courses in biochemistry and basic statistics.
Special Opportunities	Meets eligibility requirements for taking the certification examination given by the American Academy of Microbiologists.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Microbiology.

Undergraduate Program in Medical Technology

ADMISSION TO THE PROGRAM Matriculation at the University will not guarantee admission to the major. Students admitted to the College of Arts and Sciences may apply for the major after completion of five semesters and a minimum cumulative grade-point average of 2.75. Admission to the major is determined by the Department of Biology Medical Technology Advisor in consultation with the Educational Coordinator at Oscar B. Hunter Laboratory.

Set Requirements	09.101, 09.102, 09.250, 09.335, 09.356, 09.357, 09.340, 09.341, 09.360, 09.361, 09.362, 09.363, 09.364, 09.365, 09.366, 09.367, 09.368, and 09.369.
Required Options	Two biology electives from 09.200–09.500.

Related Requirements	15.310, 15.312, 15.320, 15.322, and 42.202.
Recommendations	To practice the profession, students must pass the Medical Technology Registry Examination administered by the American Society of Clinical Pathologists.
Special Opportunities	Meets eligibility requirements to take certification examination to become a certified medical technologist.
DEGREE OBJECTIVE	Students receive a degree of Bachelor of Science with a major in Medical Technology.

Master’s Program in Biology

ADMISSION TO THE PROGRAM	Based on results of the Graduate Record Examination Aptitude Test and Advanced Test in Biology and evaluation by the department Graduate Studies Committee. Two letters of recommendation are required.
Course Requirements	Minimum of 32 semester hours of approved graduate work, including 09.797 (6 hours) and 09.700 (2 hours).
Special Opportunities	Helmlinge Fellowship
Advancement to Candidacy	Requires successful completion of the comprehensive examination.
Examinations	One comprehensive examination selected from among the following: 09.001 General Biology (for M.S.S.T. candidates only); 09.002 Plant Sciences; 09.003 Developmental Biology; 09.004 Physiology; 09.005 Microbiology; 09.006 Environmental Science-Ecology; 09.007 Genetics; 09.008 Immunology; or 09.009 Zoology.
Thesis	Students must achieve successful completion, defense, and acceptance of thesis by the chairman of the committee, chairman of the department, and the University.
DEGREE OBJECTIVE	Students receive a degree of Master of Science degree with a major in Biology.

Courses of Instruction

Undergraduate Courses

- 09.100 HUMAN BIOLOGY (3)** Designed specifically for the nonscience major who is interested in learning about human biological function and structures. Course integrates human development and body functions with current social and ecological problems. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.
- 09.101 GENERAL BIOLOGY I (4)** Introduction of basic chemical principles of biology concerned with aspects of molecular and cellular organization as may concern anabolism, catabolism, and reproduction. Two semester course taken with 09.102 in spring. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.
- 09.102 GENERAL BIOLOGY II (4)** Consideration of higher levels of organization and relationship of form and function in ecological adaptations. Sequential course taken after 09.101 in fall. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 09.101 or permission of instructor.
- 09.120 MICROBES AND MAN (3)** A survey of the beneficial and detrimental properties of microbes to human welfare, designed for the nonbiology, nonscience major. Topics to include: role of microbes in the turnover of matter, in the brewery, dairy and other food industries; as agents of disease; in municipal water treatment processes; the application of microbes in testing for biological systems of extraterrestrial environments, and the problems of microbes in space travel. May be taken for the natural and mathematical sciences distribution requirement. Usually offered alternate springs.
- 09.203 INTRODUCTION TO OCEANOGRAPHY (4)** Marine geology, oceanography, life in sea, fisheries, marine technology, and international law. Economic aspects of animals in sea. Laboratory consists of weekend field trips and cruises. Meets jointly with 09.603. May be taken for the natural and

mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites*: two courses in natural science or 09.101.

09.204 MARINE BIOLOGY (4) Survey of animals and plants in the sea; their structures, habits, and distributions, with emphasis on dangerous, conspicuous, and economically important forms. Week-end field trips and cruises. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisites*: 09.102, 09.203 (recommended); permission of instructor.

09.210 EVOLUTION (3) History of evolutionary thought, mechanisms of evolutionary change, evidence for, and theories proposed to account for evolution. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite*: one course in biology or permission of instructor.

09.225 WILDLIFE CONSERVATION AND MANAGEMENT (3) General principles of ecology. Illustration of how these principles relate to conservation and management of ecosystems. Discussion of endangered species and communities. Conservation and wildlife management practices. Conservation and education. Federal and state laws regulating conservation and management of ecosystems. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.

09.230 PLANT CLASSIFICATION AND UTILIZATION (4) Introduction to principles of plant identification. Emphasis on common plants in area. Identification and use of edible wild plants. Identification and symptomatology of poisonous wild plants. Use of plants by man. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite*: one semester biology or permission of instructor.

09.250 CELL BIOLOGY (4) Integrated study of cell structure and function in microorganisms, plants, and animals emphasizing their ultrastructure, biochemistry, and physiology. *Prerequisites*: 09.102, 15.120, 15.121, 15.130, 15.131.

09.300 COMPARATIVE VERTEBRATE ANATOMY (5) Study of evolution of vertebrate structure with emphasis given to interpretation of structure on basis of function. Laboratory involves dissection of selected vertebrates; usually dogfish, shark, and cat. May be taken for the natural and mathematical sciences distribution requirement. Usually offered alternate falls. *Prerequisite*: 09.101, 09.102.

09.304 PLANT STRUCTURE AND FUNCTION (4) Survey of plant kingdom. Evolutionary relationships of plants based on anatomy, morphology, and physiology. Plant growth and development and plant diseases. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite*: 09.102.

09.310 INVERTEBRATE ZOOLOGY (4) Structure, evolution, and physiology of invertebrate animals, with emphasis on marine, nonparasitic groups. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite*: one year of general biology or equivalent.

09.330 HUMAN ANATOMY AND PHYSIOLOGY I (4) Morphologic and functional studies of mammalian systems with special reference to man, directed toward understanding of relationship between normal and abnormal function and homeostasis. Laboratory assignments demonstrate physiological principles. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites*: 09.101 and at least one semester of chemistry or permission of instructor.

09.331 HUMAN ANATOMY AND PHYSIOLOGY II (4) Continuation of 09.330. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisites*: 09.330 and at least one semester of chemistry or permission of instructor.

09.335 VERTEBRATE PHYSIOLOGY (4) Properties and physiological processes common to all vertebrates; based on a functional study of vertebrate organ systems. Usually offered every spring. *Prerequisites*: 09.250 and one year general chemistry.

09.340 MICROBIOLOGY (3) Microorganisms and their relation to human welfare; structure, function, physiological, and biochemical properties. Primary emphasis on bacteria. Usually offered every fall. *Prerequisites*: 09.101, 09.102, 15.310, 15.320.

09.341 MICROBIOLOGY LABORATORY (2) Experiments include microscopy, staining techniques, qualitative and quantitative properties of bacterial growth, physiology, and other topics. Optional for nonbiology and nonmicrobiology majors. Usually offered every fall. *Prerequisite*: must be taken concurrently with 09.340.

09.356 GENETICS (3) Basic genetic principles and concepts as revealed by classical and modern research methods. Patterns of gene transmission; gene structure, function, interactions, and mutation; chromosomal aberrations; nonchromosomal inheritance; biochemical genetics and population genetics. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* one course in biology.

09.357 GENETICS LABORATORY (1) Experiments designed to illustrate basic genetic concepts utilizing materials from corn, *Drosophila*, and man. Optional for nonbiology majors. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* one semester of biology.

09.358 DEVELOPMENTAL BIOLOGY (5) Integration of descriptive morphology and experimental physiology of developmental processes in selected invertebrate, vertebrate, and plant types. Laboratory involves the study of prepared microscope slides and living material. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisites:* 09.101, 09.102.

09.390 INDEPENDENT READING COURSE IN BIOLOGY (1-6)*

09.400 TECHNOLOGY AND INSTRUMENTATION IN BIO-ANALYSIS (6) Offers theoretical and practical experience in the use of modern laboratory instrumentation. Students perform experiments, operate various instruments, and familiarize themselves with the theory and techniques utilized in performing experiments and analysis. Usually offered every term. *Prerequisites:* senior standing and permission of instructor or chairman of department.

09.411 PATHOGENIC MICROBIOLOGY (4) Designed to familiarize students with basic principles of disease epidemiology and etiology. Concentration on bacterial disease agents; practical laboratory experience in study of these agents and their effects. Usually offered every fall. *Prerequisites:* 09.340 and 09.341.

09.430 HUMAN HEREDITY (3) Discussion of inheritance of normal physical and mental traits, common genetic diseases and defects, genetic counseling, social implications of genetics, genetic implications of social forces, and inherited racial differences, with emphasis on information the layman wants, rather than the mechanics of inheritance, *per se*. Designed for nonbiology majors. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.

09.490 INDEPENDENT STUDY PROJECT IN BIOLOGY (1-6)*

09.491 INTERNSHIP (1-4) Usually offered every term.

MEDICAL TECHNOLOGY

09.360 BLOOD BANK (5) Genetics of blood groups and subgroups. Donor screening and recruitment, blood processing, component preparations, transfusion reactions, AABO and NIH standards. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.361 CLINICAL PARASITOLOGY (1) Identification of human protozoan and helminth parasites by microscopic, chemical and immunological techniques. Invertebrate parasite vectors. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.362 IMMUNOLOGY AND SEROLOGY (1) Principles of immune response from clinical point of view. Serological testing, heterophile tests, fluorescent antibody theory and technique, febrile agglutination, antistreptolysin titre, latex procedures, colloidal gold, and complement fixation theory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.363 URINALYSIS AND CLINICAL MICROSCOPY (1) Study of urine to infer renal function. Anatomy and physiology of urinary system, physical, and chemical characteristics of normal and pathologic urine. Renal function tests, introductory histopathology, slide preparation, frozen sections, and quality control procedures. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.364 HEMATOLOGY (6) Hematopoiesis, morphology of red and white blood cells, hemoglobinopathy, and hematology case studies. Emphasis on differential white cell counts to determine pathological abnormalities. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.365 LABORATORY MANAGEMENT AND BASIC STATISTICS (1) Introduction to research evaluation, application of statistics to interpreting laboratory results, reading scientific articles, care and handling of instruments, quality control, personnel, and public relations. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.366 CLINICAL CHEMISTRY (7) Principles underlying biochemical diagnosis of human disease. Analytical chemistry, protein-free filtrates, chemical fractionation of protein, lipids and liver function tests, inorganic substances, classification and determination of enzymes, acid-base balance, hormones, and toxicology. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.367 CLINICAL MICROBIOLOGY AND MYCOLOGY (6) Diagnosis of disease caused by bacteria, fungi, and viruses. Bacterial morphology, physiology, and genetics. Immune theory, cultivation of pathogens. Tissue and organ culture. Identification of microbes. Lecture and laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.368 COAGULATION (1) Acquired and genetic pathological bleeding conditions. Assay for blood proteins involved in blood clot formation. Bone marrow response to coagulopathy. Lecture and Laboratory. Usually offered every term. *Prerequisite:* senior in medical technology.

09.369 CLINICAL PATHOLOGY (1) Summary and correlation of medical technology courses taken in senior year. How to write scientific and technical papers. Students write a paper comparing two laboratory methods. Usually offered every term. *Prerequisite:* senior in medical technology.

Graduate and Advanced Undergraduate Courses

09.500 MICROBIAL PHYSIOLOGY (4) General approach to analysis of principles of intermediate metabolism of microorganisms with emphasis on bacteria. Topics included are: storage and utilization of energy, metabolic reactions of chemosynthetic organisms, and metabolism associated with biosynthesis and growth. Discussion on unique physiological systems of microbes in relation to structure. Laboratory stresses the diversity of physiological processes of bacteria. Usually offered every spring. *Prerequisites:* 09.340 and organic chemistry.

09.502 COOPERATIVE WORK-STUDY: LIGHTSHIP CHESAPEAKE (4) Organization and coordination of environmental programs through National Park Service's Operation Lightship Chesapeake on Potomac River watershed. Designed to provide students with practical field experience in aquatic biology. Another option available to students is to conduct research project or prepare paper on the Potomac River. Tuition paid by Lightship Chesapeake. Usually offered every term. *Prerequisite:* permission of instructor.

09.510 IMMUNOGENETICS (3) Genetic control of immunologic reactions; inheritance of cell-borne antigens determining blood groups and transplantation of cells, tissues, and organs. Current concepts of related immunological phenomena including cancer and pregnancy. Usually offered every spring. *Prerequisite:* two courses in biology.

09.520 LIMNOLOGY (4) Study of physical, chemical, and biological properties of fresh water environments. Ponds, lakes, reservoirs, rivers, and estuaries studied as integrable systems of standing or flowing waters. Geochemical cycles and contribution of urban and terrestrial components to these systems. Field trips and cruises are requirements of this course. Usually offered every spring. *Prerequisites:* senior or graduate standing.

09.523 GENERAL ECOLOGY (4) Aquatic and terrestrial ecology; principles stressed through extensive field work; aquatic phase with emphasis on estuarine ecosystems, terrestrial phase with emphasis on synecology in various ecosystems. Field trips and cruises are a requirement. Usually offered every fall. *Prerequisites:* senior or graduate standing in biology.

09.524 ADVANCED ECOLOGY (4) Study of systems ecology organisms at population and community levels. Principles of plant and animal ecology, an evolutionary approach to environmental selection, and detailed presentation of the communities of various habitats. Selected topics in behavior. Field trips and cruises are a requirement. Usually offered every spring. *Prerequisite:* 09.523.

09.526 COMPARATIVE MAMMALIAN EMBRYOLOGY (4) Descriptive aspects of embryology of mammal. Emphasis on development of humans. *Prerequisite:* 09.358 or equivalent.

09.531 HISTOLOGY (5) Study of microscopic structure of tissues and organs of representative animals. Laboratory involves study of prepared histology slides and the learning of histological techniques. Usually offered alternate falls. *Prerequisite:* 09.250 or equivalent.

09.535 ENDOCRINOLOGY (4) Structure and function of endocrine glands with emphasis on their control of mammalian functional processes. *Prerequisite:* advanced standing in biology and organic chemistry.

09.541 IMMUNOLOGY (4) Fundamental concepts of the immune response. Nature of immunogens, antigens, and antibodies and their interactions. Theories of antibody diversity and cellular basis of antibody formation. Immunologic tolerance, hypersensitivity, and surveillance. Introduction to transplantation immunology. Laboratory provides expertise in classical serologic techniques and modern *in vitro* culture and assay methods. Usually offered every spring. *Prerequisites:* 09.250 and 09.340.

09.543 VIROLOGY (3) Lectures outlining characteristic of bacterial, plant, and animal viruses. Genetic and biochemistry of viral pathogenesis. Introduction to medical virology and concepts of antiviral immunity. Theories of viral pathogenesis. Usually offered every spring. *Prerequisites:* 09.340 and two courses in organic chemistry.

09.550 SCIENTIFIC PUBLICATION (4) Tools necessary for publication of a scientific paper. Emphasis on microscopy, photomicroscopy, macrophotography, illustration, writing, editing, printing and employment. *Prerequisite:* graduate standing in biology or permission of instructor.

09.555 WATER POLLUTION BIOLOGY (2) Use of biological indicators of pollution in fresh water, estuarine, and salt water environments. Effects of pollution on aquatic ecosystems from system level to species level. Laboratory also required for biology majors. Usually offered every summer. *Prerequisite:* senior or graduate standing.

09.556 WATER POLLUTION BIOLOGY LABORATORY (4) Consists of analytical techniques for chemical, physical, and biological parameters which are affected by pollution. Includes specific methods for bioassays and collection analysis of field data. Usually offered every summer. *Prerequisites:* senior or graduate standing. Taken concurrently with 09.555.

09.565 MOLECULAR GENETICS (3) Modern research concerning DNA, RNA, and protein, from a chemical point of view concerning their function within the cell. Usually offered alternate falls. *Prerequisites:* 09.250, 09.340, 09.356, 15.320 and permission of instructor.

09.571 ADVANCED VERTEBRATE PHYSIOLOGY (3) An in-depth lecture series beginning with basic concepts of pulmonary and cardiovascular physiology, progressing to the effects of high and low pressure environments on these organ systems. *Prerequisites:* 51.221, 15.130, and 09.331 or 09.335.

09.572 SPECIAL TOPICS IN ECOLOGY (1–4) Discussions on selected topics and current research relating to freshwater and marine aquatic ecosystems, biogeography, and populations of plants and animals. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* one course in basic ecology.

09.573 SPECIAL TOPICS IN MICROBIOLOGY (1–4) Discussion on selected topics and current research in microbial genetics, microbial systematics, microbial biochemical cytology, and others. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* permission of instructor.

09.574 SPECIAL TOPICS IN GENETICS (1–4) Selected topics in modern genetics, such as the molecular aspects of genetic regulation, development, and recombination. Laboratory topics are also given, but not with every offering. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate falls. *Prerequisite:* permission of instructor.

09.575 SPECIAL TOPICS IN IMMUNOLOGY (1–4) Seminars include a discussion of current research interests such as genetics of antibody formation, lymphocyte surface antigens, and cell interactions in immune responses and transplantation and graft-vs-host reactions. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* permission of instructor.

09.576 SPECIAL TOPICS IN ZOOLOGY (1–4) Invertebrate and vertebrate evolution, zoogeography, taxonomy, systematics, and in-depth marine invertebrate systematics. *Prerequisite:* permission of instructor.

09.577 SPECIAL TOPICS IN DEVELOPMENTAL BIOLOGY (1–4) Discussion of current research interests such as nuclear-cytoplasmic interactions, cell surface in development, developmental aspects of carcinogenesis, and gene expression in development. May be repeated for credit, but not within the same term; topic must be different. *Prerequisites:* 09.358 or equivalent and permission of instructor.

09.590 INDEPENDENT READING COURSE IN BIOLOGY (1-6)*

09.592 SEMINAR AT THE SMITHSONIAN INSTITUTION (1) May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisite:* junior, senior, or graduate standing.

Graduate Courses

09.603 INTRODUCTION TO OCEANOGRAPHY (4) Origin of earth, chemical and physical character of sea water, marine geology, atmospheric circulation, currents, waves, tides, sediments, instrumentation, economic aspects of marine life, and marine ecology. Weekend field trips. Meets jointly with 09.203. Usually offered every fall. *Prerequisite:* permission of instructor.

09.623 MARINE ECOLOGY (3) Influence of the physical and biological environment on distribution of marine and estuarine organisms. Emphasis on productivity, diversity, and impact of man on economically valuable environments. Usually offered every spring. *Prerequisite:* 09.523.

09.624 MARINE ECOLOGY LABORATORY (2) Laboratory and field experience in sampling, measuring, and identifying marine and estuarine organisms. Measuring physical conditions with standard oceanographic instruments. Experimental cultivation of marine organisms. Meets jointly with 09.623. Usually offered every spring. *Prerequisite:* 09.523.

09.690 INDEPENDENT STUDY PROJECT IN BIOLOGY (1-6)*

09.700 GRADUATE SEMINAR (1) May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* graduate standing in biology.

09.710 TRANSPLANTATION BIOLOGY (4) Practical and theoretical study of immunogenetic phenomena as related to transplantation, cancer, and reproduction. *Prerequisite:* permission of instructor.

09.730 ADVANCED CELL PHYSIOLOGY (4) Emphasizes the structure and functions of cellular components: chromosomes mitochondria, membranes, nuclear-cytoplasmic interactions, and chloroplasts. Offers current information about mechanisms involved. Usually offered every fall. *Prerequisites:* 09.250 and graduate standing in biology or permission of instructor.

09.731 SELECTED TOPICS IN ADVANCED MOLECULAR BIOLOGY (1) Selected topics include membrane structure, junctions, membrane-polysome interactions, up-to-date information in nucleic acid research, cellular responses to cyclic AMP, prostaglandins and neurobiology, learning, memory, and effects of drugs, etc. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisites:* 09.730 and permission of instructor.

09.733 RADIATION BIOLOGY (4) Biological aspects of ionizing radiation in relation to whole organism, to organ systems, cellular, and subcellular structures through laboratory experiments. *Prerequisite:* graduate standing.

09.761 EXPERIMENTAL EMBRYOLOGY (4) Mechanism of fertilization, differentiation, and growth of vertebrates. Laboratory projects include experimental tests with selected vertebrate embryos. *Prerequisites:* graduate standing in biology, 09.358 or equivalent.

09.797 MASTER'S THESIS RESEARCH (1-6) Usually offered every term.

Chemistry

CHAIRMAN Matthew F. Norton

FULL-TIME FACULTY

University Professor L. Schubert

Professor M. H. Aldridge, R. T. Foley, D. E. Hadary, M. F. Norton, F. A. H. Rice, P. F. Waters

Associate Professor T. S. Cantrell, F. W. Carson, N. M. Roscher

Senior Research Scientist B. F. Brown, H. S. Isbell

Chemistry is the science that deals with the composition of materials, their structures and properties,

*See description under General Curriculum Information in this publication.

the transformations they undergo, and the accompanying energy changes. The curriculum begins with general conceptual and experimental work and progresses to more theoretical and practical levels. Areas of study include general, organic, physical, analytical, inorganic, and polymer chemistry, as well as biochemistry, electrochemistry, and earth sciences. The department is accredited by the American Chemical Society and offers programs leading to the M.S. and Ph.D. degrees in chemistry with emphasis on biochemistry, electrochemistry, organic chemistry, and physical chemistry. The M.S. and Ph.D. in chemistry with an emphasis on chemical information science or the Ph.D. in chemistry with an emphasis on environmental studies are offered in cooperation with the Center for Technology and Administration. A Master of Science in Science Teaching and Ph.D. in science education are offered in cooperation with the School of Education.

Undergraduate Washington Semester Program in Science and Technology

ADMISSION TO THE PROGRAM This special one semester program draws on the unique resources of Washington, D.C., to introduce students to the relationship between science and government policy through seminars, internships, and research. The program is open to students of The American University and students of affiliated institutions from across the country. Requirements for admission to the program are: (1) nomination by Washington Semester faculty representative; (2) minimal 2.50 grade-point average on 4.00 scale; (3) undergraduate major in science or mathematics; and (4) senior, junior, or second semester sophomore status at time of participation. The selection process is competitive.

Cost 15.492, 15.493, and 15.494.

Requirements

Required Options As their fourth course, students may elect either a research project or a regular American University course from among *evening* offerings.

DEGREE OBJECTIVES This program does not lead to a degree. Student earns undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Program in Chemistry

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students, as well as declared chemistry majors. A 2.00 grade-point average is necessary for admission to the program.

Cost 15.120, 15.121, 15.130, 15.131, 15.310, 15.312, 15.320, 15.322, 15.350, 15.351, 15.410, 15.411, 15.420, 15.421, 15.460, 51.461, 15.507, and 15.550.

Required Options 15.523 or 15.560, and 15.561.

Related Requirements 41.111, 41.222, 41.223, 51.220, 51.221, 51.222, and 51.223.

Recommendations All chemistry majors are urged to take 15.380, 15.562, 15.563, and 15.564. Those planning to attend graduate school should consider 15.520, 15.521, 15.522, 15.546, and 15.551. Suggested electives for pre-medical students include: 09.101, 09.102, 09.210, 09.250, 09.304, 09.340, 09.341, 09.356, 09.357, 09.400, and 09.541 in biology. Other suggested electives include 27.100 in earth science; 40.280 and 40.281 in computer science; 42.202, 42.502, and 42.516 in statistics; and 51.330 and 51.370 in physics. Competence in a modern foreign language, particularly German or Russian, through the intermediate level is expected.

Special Opportunities A cooperative work-study program is available through the Department of Chemistry at several cooperating research organizations. The undergraduate student is expected to work full-time for six months and study at the University for five months. Further details available from the department office.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Chemistry.

NOTE ALSO See the Interdepartmental Science section for information concerning requirements for the Bachelor of Science degree with a major in Distributed Science.

Master's Program in Chemistry

TRACKS Biochemistry, electrochemistry, organic chemistry, physical chemistry, and chemical information science.

ADMISSION TO THE PROGRAM A B.S. in chemistry with a 2.70 cumulative grade-point average in chemistry from a college accredited by the American Chemical Society, and approval of the American University Department of Chemistry faculty.

Course Requirements A minimum of 30 semester hours of graduate work. Before the student enters this program, his or her advisor, as well as the department chairman, must give signed approval of the proposed curriculum. The entire course of study must constitute a unified program with specified major and minor fields. Recommendations will be based upon the results of placement examinations administered to all incoming graduate students. 15.507, 15.523 and 15.550 are required unless they have been completed with a grade of B or better in an undergraduate program. All students must complete one semester hour of 15.700 and 6 semester hours of 15.797.

Students concentrating in biochemistry or organic chemistry must complete 15.520, 15.521, 15.522, 15.560, and 15.561.

Students concentrating in physical chemistry must complete 15.546, 15.551, 15.600, 15.601, and 15.642.

Students desiring an emphasis in chemical information science must complete at least 18 semester hours of chemistry, including 1 hour of 15.700, 6 hours of 15.797, 15.600 and 15.601 or 15.520 and 15.521, and 15.551 or 15.560, and 15.561. The following courses in the Center for Technology and Administration must be taken: 55.550, 55.653, 55.654, 55.656, and 55.750.

Advancement to Candidacy Students must file for advancement to candidacy upon completion of 12 graduate semester hours of course work.

Tools Students must pass an examination, or its equivalent, in one of the following: Russian, German, French, computer programming, or statistics.

Examinations Two cumulative examinations in the student's main field and one in his minor field must be taken with a net score of at least four out of nine points. Students specializing in chemical information science must pass a Center for Technology and Administration comprehensive examination in scientific and technical information in place of one point on one of these examinations.

Thesis A thesis of publishable quality based on original chemical laboratory research must be presented and orally defended before the student's committee.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Chemistry.

NOTE ALSO Master of Science in Science Teaching (listed under Interdepartmental Science) Master of Science in Technology of Management (listed under the Center for Technology and Administration).

Doctoral Program in Chemistry

TRACKS Biochemistry, electrochemistry, organic chemistry, physical chemistry, chemical information science, and environmental studies.

ADMISSION TO THE PROGRAM Either (1) an undergraduate major in chemistry with a 3.00 cumulative grade-point average in the major from a college accredited by the American Chemical Society, and approval by The American University Department of Chemistry faculty; or (2) an M.S. or M.A. in chemistry and approval by The American University Department of Chemistry faculty; or (3) an M.S.T.M. (environmental systems management) and appropriate background in undergraduate chemistry to allow the applicant to enter graduate chemistry courses, and approval by The American University Department of Chemistry faculty.

Course Requirements	A minimum of 72 semester hours of graduate work. The entire course of study must constitute a unified program with specified main and minor fields and a proposed curriculum approved by signatures of the student's advisor and the chairman of the department before the student enters the program. Recommendations will be based upon the results of placement examinations administered to all incoming graduate students. 15.507, 15.523, 15.550 are required unless they have been completed with a grade of B or better in an undergraduate program. All students must complete 15.520, 15.521, 15.551, 15.600, 15.601, 2 semester hours of 15.700, and 12 to 24 semester hours of 15.799. Students concentrating in biochemistry or organic chemistry must complete 15.522, 15.560, and 15.561. Students concentrating in physical chemistry must complete 15.608, 15.642, 15.648, and 15.644. Students desiring an emphasis in chemical information science or environmental studies must complete at least 60 graduate semester hours of chemistry, including 15.520, 15.521, 15.551, 15.560, 15.561, 15.600, 15.601, 2 semester hours of 15.700, and 12 to 24 semester hours of 15.799. Those in the chemical information science program must take the following courses in the Center for Technology and Administration: 55.550, 55.653, 55.654, 55.656, and 55.750. Those in the environmental studies program must complete 18 appropriate semester hours in environmental systems management courses in the Center for Technology and Administration.
Advancement to Candidacy	Students admitted with a B.S. or a B.A. degree must file for advancement to candidacy upon completion of 18 graduate semester hours in chemistry. Students admitted from another university with an M.S. degree are required to file for advancement to candidacy upon completing 9 graduate semester hours in chemistry.
Tools	Students must pass examinations, or their equivalents, in two of the following: Russian, German, French, computer programming, or statistics.
Examinations	Four cumulative examinations in the student's major field and two in his minor field must be taken with a net score of at least 12 out of 18 points. Students specializing in chemical information science must pass two Center for Technology and Administration comprehensive examinations in scientific and technical information in place of achieving six points on three of these examinations. Students specializing in environmental science must pass one Center for Technology and Administration comprehensive examination in environmental systems management in place of achieving six points on three of the chemistry cumulative examinations.
Dissertation	A dissertation of publishable quality based on original chemical laboratory research must be presented and orally defended before the student's committee.
DEGREE OBJECTIVE	Students receive a degree of Doctor of Philosophy with a major in Chemistry.
NOTE ALSO	Doctor of Philosophy in Science Education (listed under Interdepartmental Science) and Master of Science in Technology of Management (listed under the Center for Technology and Administration).

Courses of Instruction

Undergraduate Courses

15.101 CHEMISTRY AND SOCIETY (3) "The New Humanism." This concept is developed through discussion of the chemistry of life; energy and its alternate sources; population, food, and nutrition;

the environment; poisons and disease; and technology. Explores the principles of chemistry to show the relationship to contemporary philosophy and to cultural and national concerns.

15.120 GENERAL CHEMISTRY I (3) Atomic theory, electronic configuration, bonding, molecular structure, periodic table, and gases. Must be taken concurrently with 15.121. Three hours of lecture and one hour of seminar. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every summer.

15.121 GENERAL CHEMISTRY I LABORATORY (1) Laboratory work associated with the theoretical material in 15.120. Must be taken concurrently with 15.120. Three hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every summer. *Prerequisite:* concurrent registration in 15.120.

15.130 GENERAL CHEMISTRY II (3) Kinetics and equilibrium. Thermodynamics. Electrochemistry. Elements and their compounds treated systematically. Must be taken concurrently with 15.131. Three hours of lecture and one hour of seminar. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 15.120.

15.131 GENERAL CHEMISTRY II LABORATORY (1) Laboratory work associated with the material in 15.130. Qualitative inorganic analysis. Must be taken concurrently with 15.130. Three hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* concurrent registration in 15.130.

15.160 NATURAL SCIENCES I (4) Science oriented course designed around Science Curriculum Improvement Study (SCIS), American Association for the Advancement of Science (AAAS) for elementary school science. Life and physical sciences. Laboratory work with SCIS materials and kits. Three hours of lecture, one hour of seminar, one hour of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.

15.161 NATURAL SCIENCES II (4) Continuation of life and physical sciences material from SCIS and AAAS programs. Laboratory work with AAAS materials and kits as well as from Elementary Science Study (ESS) program. Teaching this material in a model school. Three hours of lecture, one hour of seminar, one hour of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring.

15.310 ORGANIC CHEMISTRY I (3) Systematic and theoretical treatment of aliphatic and aromatic hydrocarbons, alcohols, halides and ethers, ionic and free radical reactions. Stereochemistry. Must be taken concurrently with 15.312. Three hours of lecture and one hour of seminar. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every summer. *Prerequisite:* 15.130.

15.312 ORGANIC CHEMISTRY I LABORATORY (1) Laboratory theory and practice in synthesis, separation, and purification of organic compounds. Introduction to modern separation techniques, including thin layer, liquid, and gas chromatography. Must be taken concurrently with 15.310. Four hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and summer. *Prerequisite:* concurrent registration in 15.310.

15.320 ORGANIC CHEMISTRY II (3) Aliphatic and aromatic acids, nitrogen compounds, carbonyl compounds, and their derivatives. Introduction to polyfunctional compounds, including amino acids, carbohydrates, lipids, and nucleic acids. Must be taken concurrently with 15.322. Three hours of lecture and one hour of seminar. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 15.310.

15.322 ORGANIC CHEMISTRY II LABORATORY (1) Multistep syntheses. Synthesis of polyfunctional compounds. Introduction to infrared and nuclear magnetic resonance spectral techniques. Qualitative organic analysis. Must be taken concurrently with 15.320. Four hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* concurrently with 15.320. Four hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* concurrent registration in 15.320.

15.350 QUANTITATIVE ANALYSIS (3) Theory of acid-base, complexation, precipitation, and redox equilibria. Volumetric and gravimetric analyses. Separations. Statistical analysis of data. Separation and analysis of complex mixtures. Must be taken concurrently with 15.351. Three hours of lecture and one hour of seminar. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites:* 15.130, 41.111.

15.351 QUANTITATIVE ANALYSIS LABORATORY (2) Practice of gravimetric and volumetric analysis. Analysis of mixtures and commercial products. Project work. Concurrent registration in 15.350. Six hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.

15.380 ELECTRONIC INSTRUMENTATION FOR CHEMISTS (1) Basic electronic principles; theory and operation of typical laboratory equipment; assembly of simple electronic circuits using tubes and transistors; specially designed for chemistry students. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites:* 51.221, 15.130.

15.390 INDEPENDENT READING COURSE IN CHEMISTRY (1-6)*

15.410 PHYSICAL CHEMISTRY I (3) Gases and liquids, equations of state, kinetic theory of gases, the solid state, atomic structure, atomic spectra, quantum numbers, periodic table, quantum mechanics, Schrodinger equation, ionic bonds, covalent bonds, hybrid bonds, polarization, molecular spectra, magnetic properties, nuclear chemistry, first law of thermodynamics, thermochemistry. Must be taken concurrently with 15.411. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites:* 15.320, 51.221, 41.223.

15.411 PHYSICAL CHEMISTRY I LABORATORY (2) Mathematical techniques; high vacuum systems; gamma of gases; heat of combustion; thermocouples; refractometry; fluid viscosity; rates of reactions; electrical conductivity; ionization constants; free energy, enthalpy, and entropy of an electrochemical reaction. Must be taken concurrently with 15.410. One hour of lecture and four hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite:* concurrent registration in 15.410.

15.420 PHYSICAL CHEMISTRY II (3) Second and third law of thermodynamics, entropy, free energy and equilibrium, chemical equilibrium, statistical mechanics, solutions of nonelectrolytes, solutions of electrolytes, electrochemical cells, the phase rule, chemical kinetics, photochemistry, surface chemistry, colloids, macromolecules. Must be taken concurrently with 15.421. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 15.410.

15.421 PHYSICAL CHEMISTRY II LABORATORY (2) Atomic spectra. Franck-Hertz experiment, operation of oscilloscopes and electroscopes, Kerr effect, Faraday effect, Hall effect, magnetic susceptibility, dielectric constant, spectrum of Beta-carotene, viscosity of polymers, molecular weight by light scattering, critical surface tension. Must be taken concurrently with 15.420. One hour of lecture and four hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* concurrent registration in 15.420.

15.460 INSTRUMENTAL QUANTITATIVE ANALYSIS (3) Theory of optical and electroanalytical methods, including spectrophotometry, fluorometry, spectrography, flame and atomic spectroscopy, selective ion electrodes, polarography, amperometry, mass spectrometry, chromatography, electronics, radiometric techniques, isotope dilution, neutron activation analysis. Analysis of errors. Must be taken concurrently with 15.461. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisites:* 15.350, 15.410, 41.222.

15.461 INSTRUMENTAL QUANTITATIVE ANALYSIS LAB (2) Practice in optical, electroanalytical, and other instrumental methods. Project work. Must be taken concurrently with 15.460. Six hours of laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* concurrent registration in 15.460.

15.490 INDEPENDENT STUDY PROJECT IN CHEMISTRY (1-6)*

15.492 WASHINGTON SEMESTER SEMINAR I (3)

15.493 WASHINGTON SEMESTER SEMINAR II (3)

15.494 WASHINGTON SEMESTER INTERNSHIP (3-6)

EARTH SCIENCES

27.100 EARTH SCIENCES (3) Survey of earth features and processes; time, weather, climate, oceans, minerals, rocks, landforms, glaciers, volcanoes, earthquakes, origin and development of life, geologic history and resources. Usually offered every fall and every spring.

* See description under General Curriculum Information in this publication.

27.101 SPACESHIP EARTH (3) Study of the natural limits of life on Earth and the effects human activities have on these limits. Cause, prediction, and control of natural catastrophes. Causes and possible amelioration of pollution. Availability of natural resources. How these factors may limit population and affect life styles.

27.150 BASIC GEOGRAPHY (3) Fundamental principles of physical geography. Earth origin, position and motion, maps, weather, climate, land forms, oceans, natural resources—their use and conservation. Geographic limitations or development.

27.390 INDEPENDENT READING COURSE IN EARTH SCIENCES (1–6)*

27.490 INDEPENDENT STUDY PROJECT IN EARTH SCIENCES (1–6)*

Graduate and Advanced Undergraduate Courses

15.507 CHEMICAL LITERATURE (1) Survey of journals, abstracts, and other literature sources. Practice in conducting library and computer literature searches. Usually offered every term. *Prerequisite:* 15.310.

15.520 ADVANCED ORGANIC CHEMISTRY I (3) Principles of physical organic chemistry. Bonding and conformational analysis; nucleophilic substitution at carbon; elimination and addition reactions. Usually offered every fall. *Prerequisite:* 15.420.

15.521 ADVANCED ORGANIC CHEMISTRY II (3) Synthetic and mechanistic aspects of the chemistry of carbonyl compounds; acylations, alkylations, and other condensations; oxidation and reduction reactions. Application of orbital symmetry correlations to organic reactions. Usually offered every spring. *Prerequisite:* 15.520.

15.222 INTERPRETATION OF SPECTRA (3) Practical interpretation of ultraviolet, infrared, nuclear magnetic resonance, and mass spectra for organic chemists and biochemists. Elucidation of structures and kinetic processes. Usually offered every spring. *Prerequisite:* 15.420.

15.523 ORGANIC ANALYSIS AND SYNTHESIS (3) Separation and identification of organic mixtures utilizing gas chromatography and IR and NMR spectroscopy; advanced techniques of organic laboratory work. One hour of lecture and eight hours of laboratory. Usually offered every spring. *Prerequisite:* 15.320.

15.546 THERMODYNAMICS AND STATISTICAL MECHANICS (3) Mathematical techniques, laws, free energy functions, empirical methods for evaluating reaction feasibility; mixtures, solutions, statistical thermodynamics. Usually offered alternate falls. *Prerequisite:* 15.420.

15.550 ADVANCED INORGANIC CHEMISTRY (3) Electronic structure of atoms, ionic substances. Chemical bondings; bond energies; electronegativity; covalent radii. Bond and molecular polarity; molecular symmetry; coordination compounds; chemistry of the nontransition elements; literature of inorganic chemistry. Usually offered every fall. *Prerequisite:* 15.420.

15.551 TOPICS IN INORGANIC CHEMISTRY (3) Bonding in metals; magnetochemistry; dipole moments; transition metal chemistry including ligand field theory. Jahn-Teller effect. Mechanisms of inorganic reactions including the trans effect. Inorganic materials such as boron hydrides, inclusion compounds, inorganic polymers. Usually offered every spring. *Prerequisite:* 15.550.

15.560 BIOCHEMISTRY I (3) Structures and functions of subcellular components. Intracellular transport. Hydrogen bonding. Structures and functions of amino acids, peptides, and proteins. Hemoglobin, allostery, and sickle-cell anemia. Enzyme kinetics and mechanisms. Protein activation in blood clotting and the immune response. Metabolic principles, bioenergetics, and glycolysis. Mitochondrial compartmentation and functions. Citric acid cycle. Usually offered every fall. *Prerequisite:* 15.320.

15.561 BIOCHEMISTRY II (3) Electron transport, oxidative phosphorylation, and mitochondrial pumps. Phosphogluconate pathway. Fatty acid oxidation and amino acid degradation. Photosynthesis. Gluconeogenesis and regulation of glycogen metabolism. Fatty acid and lipid synthesis. Membrane structures and functions. Nitrogen fixation and amino acid synthesis. Transmethylation. Mononucleotide synthesis. Introduction to DNA replication, transcription, and translation. Genetic change. Usually offered every spring. *Prerequisite:* 15.560.

15.562 BIOCHEMISTRY I LABORATORY (1) Experiments coordinated with the material taught in 15.560. Temperature effects on buffers and computer-assisted data reduction. Potentiometric amino

* See description under General Curriculum Information in this publication.

acid titration and computer-assisted structure determination. Peptide sequencing employing paper chromatography. Blood hemoglobin clinical analysis. Methemoglobin reductase isolation from blood, spectrophotometric kinetics and computer-assisted data analysis. Enzymatic resolution. Must be taken concurrently with 15.560. Four hours of laboratory. Usually offered every fall. *Prerequisite:* concurrent registration in 15.560.

15.563 BIOCHEMISTRY II LABORATORY (1) Experiments coordinated with the material taught in 15.561. Spectrofluorometric assay of ATP using firefly luciferin-luciferase bioluminescence. Carbohydrate identification using thin layer chromatography. Polarimetric carbohydrate mutarotation rate determination and computer-assisted rate constant determination. Membrane phospholipid structure analysis employing enzymatic degradation, column chromatography, and gas chromatography. Individual projects. Must be taken concurrently with 15.561. Four hours of laboratory. Usually offered every spring. *Prerequisites:* 15.562 and concurrent registration in 15.561.

15.564 BIOCHEMISTRY III (3) Structures and functions of DNA, mRNA, and tRNA. Regulation of gene expression. Mutation and repair mechanisms. Self-assembling systems including viruses. Immunoglobulins and the immune response. Cell surface structures and interactions. Organ interrelationships and hormone action. Molecular features of collagen, muscle and motile systems. Membrane transport and excitable membranes. *Prerequisite:* 15.561.

15.575 SPECIAL TOPICS IN CHEMISTRY (3) Current topics of interest to pre-service and in-service secondary school science teachers. Rotating topics include: chemistry of pollution; chemistry of pesticides; chemical bonding; molecular biology. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 15.420 or permission of department chairman.

15.580 ADVANCED TOPICS IN CHEMISTRY AND GENETICS (3) Rotating topics include genetics and the chemical basis of genetic change. May be repeated for credit within the same term; topic must be different. *Prerequisite:* permission of department chairman.

15.589 TECHNIQUES FOR TEACHING LABORATORY SCIENCE TO BLIND CHILDREN (3) Practicum experiences including teaching children with existing specially adapted laboratory science equipment. Course also emphasizes design and construction of adapted laboratory equipment. Students learn braille, use of brailers, and thermoform machine. Backbone of course is mastery of science principles. Usually offered every spring. *Prerequisites:* 15.160 and 15.161, or one year laboratory sciences and permission of instructor.

15.590 INDEPENDENT READING COURSE IN CHEMISTRY (1-6)*

EARTH SCIENCES

27.590 INDEPENDENT READING COURSE IN EARTH SCIENCES (1-6)*

Graduate Courses

15.600 ADVANCED PHYSICAL CHEMISTRY I (3) Kinetic molecular theory, Boltzmann statistics, transport phenomena, quantum topics (radiation, tunnelling, superconductivity), partition functions, and elementary statistical thermodynamics. Usually offered every fall. *Prerequisite:* 15.420.

15.601 ADVANCED PHYSICAL CHEMISTRY II (3) Molecular electrical properties, intermolecular interactions, molecular magnetic properties, chemical kinetics (fast reactions emphasized), and class-selected topics. Usually offered every spring. *Prerequisite:* 15.600.

15.608 SPECIAL TOPICS IN PHYSICAL CHEMISTRY (3) Presentation of current research activity in physical chemistry. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* 15.600.

15.610 ADVANCED INORGANIC ANALYTICAL CHEMISTRY (3) Modern analytical methods and separations. Nonaqueous solvents. Usually offered every fall. *Prerequisite:* 15.460.

15.618 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (3) Presentation of current research activity in analytical chemistry. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisite:* 15.610.

15.623 ORGANIC PREPARATIONS (3) Preparative methods of organic chemistry. Emphasis on techniques; vacuum distillation, chromatography, extractions. Preparations from original literature. One hour of lecture and six hours of laboratory. Usually offered every fall. *Prerequisite:* 15.521.

* See description under General Curriculum Information in this publication.

15.628 SPECIAL TOPICS IN ORGANIC CHEMISTRY (3) Woodward-Hoffman Orbital Symmetry Correlation Rules and their application; organic photochemistry; heterocyclic chemistry; applications of nmr to the study of rates of dynamic processes. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate springs. *Prerequisite:* 15.521.

15.632 HIGH POLYMER CHEMISTRY (3) Addition and condensation polymerization kinetics, thermodynamics of solutions, phase equilibria, and molecular weight measurements (osmotic pressure, light scattering, viscometry). Usually offered alternate falls. *Prerequisite:* 15.420.

15.640 COLLOID AND SURFACE CHEMISTRY (3) Application of physicochemical principles of colloidal systems. Solid and liquid surfaces, sorption, large molecules in solution, and structure of natural and synthetic colloids. Usually offered alternate springs. *Prerequisite:* 15.420.

15.642 CHEMICAL KINETICS (3) Order and molecularity of reactions. Activated complex; theory for elementary reactions. Reactions in solutions and on surfaces. Complex reaction mechanisms. Nonisothermal kinetics. Usually offered alternate falls. *Prerequisite:* 15.420.

15.643 QUANTUM CHEMISTRY I (3) The eigenvalue problem. Operators and matrices. Introduction to group theory. Elementary wave mechanics. Atomic spectra. Spin and orbital angular momentum coupling techniques. Molecular orbital theory. Usually offered alternate falls. *Prerequisite:* 15.601.

15.644 QUANTUM CHEMISTRY II (3) Theory of electronic, vibrational, and spin resonance spectra of aromatic, organometallic, and diatomic molecules. Quantum mechanical calculations using LCAO-MO-SCF techniques. Usually offered alternate springs. *Prerequisite:* 15.643.

15.658 SPECIAL TOPICS IN INORGANIC CHEMISTRY (3) Presentation of current research activity in inorganic chemistry. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 15.551.

15.668 SPECIAL TOPICS IN BIOCHEMISTRY (3) Rotating topics include: biochemistry and pharmacology of steroids, biochemistry of vitamins and hormones, chemistry of carbohydrates, biochemical reaction mechanisms, enzyme kinetics and mechanisms. May be repeated for credit within the same term; topic must be different. Usually offered alternate falls. *Prerequisite:* 15.561.

15.670 ELECTROCHEMISTRY I (3) Faraday's law; conductivity; ionization; transport; ion mobility; activity coefficients; Debye-Huckel theory; electromotive force; galvanic cells. Usually offered alternate falls. *Prerequisite:* 15.420.

15.671 ELECTROCHEMISTRY II (3) Oxidation-reduction reactions; double layer and electrokinetic phenomena; electrode processes; corrosion; electroplating; batteries; fuel cells; biochemical processes. Usually offered alternate springs. *Prerequisite:* 15.670.

15.690 INDEPENDENT STUDY PROJECT IN CHEMISTRY (1-6)*

15.700 SEMINAR IN CHEMISTRY (1) Selected topics. Preparation and presentation of a paper of professional quality. Usually offered every term. *Prerequisite:* permission of department chairman

15.797 MASTER'S THESIS RESEARCH (1-6)

15.799 DOCTORAL DISSERTATION RESEARCH (1-20)

EARTH SCIENCES

27.600 ADVANCED TOPICS IN EARTH SCIENCES (3) Rotating topics include: geometric crystallography, optical crystallography, x-ray crystallography, geophysics, field methods, tectonics, paleontology, mineral resources, stratigraphy and sedimentation, structural geology, mineralogy, petrology, geochemistry, meteorology, and emission spectrography. May be repeated for credit within the same term; topic must be different. *Prerequisite:* permission of Dr. Norton.

27.690 INDEPENDENT STUDY PROJECT IN EARTH SCIENCES (1-6)*

* See description under General Curriculum Information in this publication.

School of

Communication

DEAN Robert O. Blanchard

FULL-TIME FACULTY

Professor R. O. Blanchard, E. L. Bliss, Jr. (Emeritus), H. D. Crawford (Emeritus), J. A. Hendrix, L. W. Wolfson

Associate Professor G. P. Harnden, L. Furber, A. K. MacDougall, J. E. Orwant, J. S. Yamauchi

Assistant Professor L. B. Anderson, D. W. Hearne, J. H. Keefer, L. Kirkman, R. E. Sutton

The goal of the School of Communication is quality education of public communicators who are intellectually and ethically equipped to convey the issues of contemporary society. The school seeks the development of skillful, liberally educated, critical, and skeptical professionals—intellectual generalists rather than specialists.

Since the role of the communicator is to understand the many factors involved in events and to comprehend the underlying issues, many of the communication courses have strong liberal arts content. They are designed to provoke a spirit of inquiry, relate knowledge from many fields, and encourage further research, as needed, to attain insight before attempting to interpret events. In these courses, students learn to organize knowledge from many different fields, related to and separate from their own opinions and values, and produce well-thought-out reports. They are encouraged to obtain a strong liberal arts background that attempts to resist the narrow specialization of vocation and interests currently popular in American higher education. The school asks that students organize, relate, express, and apply their liberal knowledge to gain some depth of understanding of the currents of contemporary life which produce the many episodes that make up the day-to-day news. In order to do this, they need to develop disciplined communication skills and a professional viewpoint.

Undergraduate Program in Communication

TRACKS Broadcast Journalism, Print Journalism, Public Communication, and Visual Media

ADMISSION TO THE PROGRAM Students must be approved by the school for a formal admission to the major. A strong liberal arts background is considered essential.

Set 17.201, 17.100, and 17.101

Requirements

Required

Options

- All students must complete one of the following program tracks: (1) *Broadcast Journalism*: 17.320, 17.333, 17.385, 17.428, either 17.454 or 17.484, and three courses in communication and media studies. (2) *Print Journalism*: 17.320, 17.322, 17.420, 17.424, and three courses in communication and media studies. One of 17.343, 17.491, or 17.521 is recommended. (3) *Public Communication*: 17.550, 17.560, 17.565, 17.572, 17.580, 17.582, and two courses chosen from communication and media studies, 17.333, 17.532, or 17.110. (4) *Visual Media*: one of 17.333, 17.334, or 17.343; one of 05.348, 05.349, 05.350, 05.351, 05.352, 05.353, 17.382, 17.532, or 23.342; three additional courses chosen from 17.381, 17.511, 17.512, 17.558, 17.559, 17.588, 23.250, 23.351, 23.352, 23.354, 17.333, 17.334, 17.343, 17.454, 17.455, 17.484, 17.485, and 17.523; and three courses in communication and media studies. One of the latter courses may be replaced by an approved substitute from outside the school.

Related

Requirements

Six semester hours in history, including at least three semester hours in American history; three semester hours in economics; three semester hours in government or international service; three semester hours in psychology, sociology, or anthropology; and nine semester hours in 300-level courses or above in one of the disciplines mentioned above

Special

Opportunities

Internships are available for selected students.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Communication.

Undergraduate Program in Foreign Language and Communication Media

TRACKS French, German, Russian, or Spanish combined with Broadcast Journalism, Print Journalism, Public Communication, or Visual Media.

ADMISSION TO THE PROGRAM Students are admitted to both the School of Communication and the Department of Language and Foreign Studies.

Set 17.100, 17.101, and 17.201

Requirements

Required (1) Three communication and media studies courses. (2) Two of the following: 37.110, 37.120, 37.130, and 37.140. (3) One of the following: 37.199, 37.200, or 37.300. (4) Five courses in one of the four communication major tracks: Broadcast Journalism, Print Journalism, Public Communication, or Visual Media. (5) Five appropriate language courses in Conversation and Composition I and II, Civilization I and II, topics, or colloquia.

Options

Recommendations Note that competency at the intermediate level in the major language is necessary in order to fulfill the degree requirements.

Special Opportunities Language clubs.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Foreign Language and Communication Media. A graduate year leading to a Master of Arts degree in Foreign Language and Communication Media is offered by the Department of Language and Foreign Studies.

Undergraduate Program in Communication, Legal Institutions Economics, and Government (CLEG)

An interdisciplinary major in Communication, Legal Institutions, Economics, and Government is available. Consult the Interdisciplinary Studies section in this publication.

Master's Program in Communication: Journalism and Public Affairs

TRACKS Print Journalism and Broadcast Journalism

ADMISSION TO THE PROGRAM A minimum undergraduate grade-point average (on a 4.00 scale) of 2.75 (for the last two years of study) and 2.75 in the major is required for admission. Previous professional or campus experience in communication is considered useful, although it is not required. However, all applicants are required to show evidence of professional commitment and career direction related to one of the graduate disciplines.

Admission is for full-time students and for fall semester only. The student is expected to complete his or her program (33 semester hours) within a 12-month period.

Address initial inquiries to Dean, School of Communication, The American University, to receive complete information on special admission procedures for the school.

The school requires the filing of *additional* information as set out in the separate brochure students receive in the application packet. That brochure, entitled *Graduate Information, School of Communication*, also provides a more detailed explanation of the purpose and content of the graduate programs. The required additional information (two copies) should be sent to the Dean, School of Communication, The American University.

Further inquiries should be addressed to both the Office of Admissions, Financial Aid, and Veterans Affairs, and the school. An interview is not required, but may be requested by the school.

Course Requirements

The program requires a total of 33 semester hours to include courses in media policy studies (15 hours), the professional journalism sequence (15 hours) and graduate level course(s) (500-level or above) in an approved related area of study (3 to 9 hours).

Media/Policy Studies Students are required to take a total of 15 semester hours from (1) required core graduate seminars: 17.710,

17.720 or 17.721, and 17.501; and (2) additional courses in this area (choose two or three with approval of advisor): 17.500, 17.503, 17.507, 17.508, 17.510, 17.531, 17.538, 17.540, 17.542, 17.544, 17.596 (nonrecurring selected topics), and 17.690.

Professional Journalism Students are required to take a total of 15 semester hours from (1) *Print Journalism* required field courses: 17.620, 17.636, and 17.724. (2) *Print Journalism* additional courses in this area (choose one or two with approval of advisor): 17.521, 17.624 (may be required), 17.690, and 17.691. (1) *Broadcast Journalism* required field courses: 17.628, 17.654, 17.724; and (2) *Broadcast Journalism* additional courses in this area (choose one or two with approval of advisor): 17.521, 17.624 (may be required), 17.684, 17.690, 17.691, and 17.782.

Note Students with insufficient news writing experience may be required to take 17.624, or an equivalent, prior to entry into the program. 17.624 can be credited toward degree requirements.

Related Area of Study Three to nine semester hours. The student is expected to choose at least one graduate level course (500-level or above) in an area related to communication approved by the school. Study may be in such fields as government and public administration, international affairs, economics, history, urban affairs, or environmental studies. Other areas of the social sciences may be considered, if approved. Students who wish to take six semester hours (or, in some cases, nine hours) in the related area(s) will be allowed to substitute the additional course(s) for certain communication course requirements, as approved by the school.

Special Opportunities	The program draws heavily on the resources of Washington, D.C., for both professional field work and classroom study.
Advancement to Candidacy	A grade-point average of B (3.00) or better must be maintained during all graduate work counting toward the degree. The student is required to maintain continuous full-time registration. A grade of B or better is required in 17.710, and 17.720 or 17.721.
Examinations	One comprehensive examination, 17.001 General Communication and Journalism, is required.
Thesis	A thesis is not required, but 17.710 and 17.720 or 17.721 must be taken to fulfill the University graduate research requirements.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Communication: Public Affairs.

Master’s Program in Communication: Media Studies

Consult the School of Communication.

Master’s Program in Interdisciplinary Studies: Film

Consult the School of Communication. See also the Interdisciplinary Studies section in this publication.

Courses Of Instruction

Undergraduate Courses

17.100 INTRODUCTION TO MASS MEDIA (3) A conceptual study of mass media in terms of history, social effects, economic and legal restraints, and current practices, conducted by communication faculty and media professionals. Lectures and field work designed to acquaint the student with the D.C. area mass media corporate activities. Required for all school majors. Usually offered every term.
Prerequisites: sophomore standing and 17.201

17.101 WRITING FOR MASS COMMUNICATION (3) Basic written techniques of mass communication.

Intensive practice in forms of writing for mass media. Required of all school majors. Usually offered every term. *Prerequisites:* 17.100 and 17.201.

17.110 PUBLIC SPEAKING (3) Principles of effective oral communication. Practice in the preparation and presentation of several types of public address. Usually offered every term.

17.201 INTRODUCTION TO COMMUNICATION (3) Principles of interpersonal communication: communication models and systems; the role of perception in communication; verbal and nonverbal message elements; communication barriers, breakdowns, and methods of improvement. Classroom exercises in interviewing techniques, small-group problem solving, and public speaking. Usually offered every spring.

17.390 INDEPENDENT READING COURSE IN COMMUNICATION (1-6)*

17.490 INDEPENDENT STUDY PROJECT IN COMMUNICATION (1-6)*

COMMUNICATION AND MEDIA STUDIES: MASS MEDIA HISTORY AND DEVELOPMENT

17.381 DEVELOPMENT OF BROADCASTING-FILM (3) Comprehensive study of trends and historical precedents in broadcast and film industries of United States with emphasis on control, financial, governmental, program, and technical factors. Usually offered every fall. *Prerequisites:* permission of the school, junior standing or above.

PROFESSIONAL COMMUNICATION CURRICULUM

17.320 REPORTING I (5) Fundamentals of news gathering, news writing, and news judgment for all media; study of news sources, field work, research, and interview techniques, supervised writing for publication in *Northwest* and the *American NewsService*. Minimum of six-hour lab required. Usually offered every term. *Prerequisites:* junior standing and 17.101.

17.322 EDITORIAL POLICIES AND METHODS I (2) Instruction and practice in editing for media. Copy editing for *Northwest* and editorial judgment. Usually offered every fall and every spring. *Prerequisites:* 17.101 and junior standing.

17.325 FEATURE ARTICLE WRITING (3) Study of various types of feature articles for newspapers, syndicates, magazines, and specialized publications; practice in research, interviewing, and writing; marketing and publication of articles in *Northwest* and *The American NewsService*. *Prerequisite:* 17.320 or permission of instructor and junior standing.

17.333 FUNDAMENTALS OF TV AND VTR (3) Basic principles of television taught in TV studio of broadcast center. Usually offered every term. *Prerequisites:* 17.100, 17.101, 17.201, and junior standing.

17.334 INTRODUCTION TO THE MOVING IMAGE (3) Provides basic introduction to critical study of moving image in film and television through production projects in 8mm film. Usually offered every spring and every summer. *Prerequisites:* junior standing, school majors only, permission of instructor.

17.343 PHOTOGRAPHY (3) Photographic fundamentals through intensive use of camera in assignment situations and black and white laboratory work in film processing and photographic printing. Three hour weekly laboratory arranged. Usually offered every term. *Prerequisites:* permission of department, junior standing or above.

17.382 WRITING FOR BROADCASTING FILM (3) Techniques of writing scripts for film and television productions. Students write and criticize assignments. No production is involved in this course—only writing and lots of it. Usually offered every fall and every spring. *Prerequisites:* junior standing or above, permission of visual media program director.

17.383 RADIO PRODUCTION AND PROGRAMMING (3) Radio programs and their determinants. Students produce, direct, and criticize assignments. This course is not required and is offered infrequently.

17.384 TV STUDIO OPERATIONS (3) Principles and practice in operation of television studio equipment. Laboratory. This course is not required and is offered infrequently. *Prerequisite:* 17.381.

*See description under General Curriculum Information in this publication.

17.385 BROADCAST JOURNALISM I (4) Competence in writing and editing news for broadcast. Actual broadcast of news programs over WAMU-FM (public radio). Firsthand reporting with tape recorders. Emphasis on responsibility in news preparation. Minimum of three-hour laboratory required. Usually offered every term. *Prerequisites:* 17.101, 17.320, 17.333, and permission of instructor.

17.420 EDITORIAL POLICIES AND METHODS II (4) Advanced training to develop editorial judgment and skills in processing material for actual publication; study of problems and practices in making assignments, handling departments, and dealing with copy as editors for either the newspaper, *Northwest* or *The American NewsService*. Meets jointly with 17.620. Minimum of three-hour laboratory required. Usually offered every term. *Prerequisites:* 17.322.

17.424 REPORTING II (5) Advanced training in writing news for actual publication, as staff writers for *The American NewsService*, with emphasis on metropolitan area coverage; student field assignments arranged equivalent to one day a week. Meets jointly with 17.624. Minimum of six-hour laboratory required. Usually offered every term. *Prerequisites:* permission of instructor.

17.428 BROADCAST JOURNALISM II (4) Examination of broadcast practices with emphasis on network evening news. Production and investigative reporting for WAMU-FM (public radio). Also production of news broadcasts for closed circuit television. Broadcast journalists participate in informal seminars. Meets jointly with 17.628. Minimum of three-hour laboratory required. Usually offered every fall and every spring. *Prerequisites:* 17.320, 17.333, 17.385, and permission of instructor.

17.454 FILM PRODUCTION AND DIRECTION I (4) An intensive introduction to all aspects of film production and direction, including writing, cinematography, editing, and criticism of motion pictures. Meets jointly with 17.654. Minimum of three-hour laboratory required. Usually offered every term. *Prerequisites:* permission of instructor and 17.333, 17.334 or 17.343.

17.455 FILM PRODUCTION AND DIRECTION II (5) Advanced level projects in film production and direction. Meets jointly with 17.655. Minimum of six-hour laboratory required. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* permission of instructor or 17.454.

17.484 TELEVISION PRODUCTION AND DIRECTION I (4) Advanced production techniques, lighting, set design, and beginning directing. Meets jointly with 17.684. Minimum of three-hour laboratory required. Usually offered every term. *Prerequisite:* permission of instructor.

17.485 TELEVISION PRODUCTION AND DIRECTION II (5) Advanced training in longer, more sophisticated television programs and directing actors. Meets jointly with 17.685. Minimum of six-hour laboratory required. Usually offered every term. *Prerequisites:* 17.484, and permission of instructor.

17.491 UNDERGRADUATE HONORS INTERNSHIP (1-6) Professional communication work in off-campus organization appropriate to the student's school program, which provides the student with experience not otherwise available in the curriculum. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* open to seniors who have completed with distinction, most or all of their program requirements. Recommendation of advisor and approval of internship director.

Graduate and Advanced Undergraduate Courses

17.590 INDEPENDENT READING COURSE IN COMMUNICATION (1-6)*

COMMUNICATION AND MEDIA STUDIES: MASS MEDIA HISTORY AND DEVELOPMENT

17.500 COMMUNICATION HISTORY (3) Development of newspapers, magazines, radio, television, and motion pictures. *Prerequisite:* junior standing or above.

17.511 FILM AND SOCIETY: THE DOCUMENTARY FILM (3) Historical development of the documentary tradition in film from 1900 to 1970 including critical analysis and evaluation of its use in modern society. Laboratory screening is in lieu of assigned reading, two-and-a-half hours a week. Usually offered every fall. *Prerequisite:* junior standing or above.

* See description under General Curriculum Information in this publication.

17.512 FILM AND SOCIETY: TELEVISION DOCUMENTARY (3) A study of the documentary film form in the age of television from 1945 to present. Survey and analysis of the thematic film including commercials. Focus on the role and use of these films in today's society. Laboratory screenings in lieu of assigned reading, two-and-a-half hours a week. Usually offered every spring. *Prerequisite:* junior standing or above.

17.558 HISTORY OF MOTION PICTURES I (3) Origins and development of the theatrical, feature length, and fiction film from the nineteenth century to 1940. International survey from an American viewpoint is stressed. Films screened, discussed, and criticized. Laboratory screenings in lieu of assigned reading, two-and-a-half hours a week. Usually offered every fall. *Prerequisite:* junior standing or above.

17.559 HISTORY OF MOTION PICTURES II (3) History and development of the theatrical, feature length, and fiction film from 1940 to the present. International survey from an American point of view. Films are viewed, discussed, and criticized. Laboratory screenings in lieu of assigned reading, two-and-a-half hours a week. Usually offered every spring. *Prerequisite:* junior standing or above.

COMMUNICATION AND MEDIA STUDIES:

MASS MEDIA INSTITUTIONS AND FUNCTIONS

17.503 MASS MEDIA AND SOCIETY (3) Role of newspapers, magazines, radio, television, and motion pictures, and their impact on society. Usually offered every term. *Prerequisite:* junior standing or above.

17.508 THE MEDIA AND GOVERNMENT (3) Examines the President and the press, other Washington press corps-official relations, the quality of government news reporting and its impact on policy, issues of government information policy, control of the media, and journalists' First Amendment rights. Usually offered every spring. *Prerequisite:* permission of the instructor, junior standing or above.

17.509 POLITICS AND THE MEDIA (3) Studies the role and impact of the mass media in the electoral process. Includes examination of candidates' use of the media to get elected and press and television reporting and analysis of political campaigns. Usually offered every term. *Prerequisite:* junior standing or above.

17.510 CONGRESS AND THE NEWS MEDIA (3) Analysis of role of news media in federal legislative process and role of Congress in defining and determining freedom of the press. *Prerequisite:* junior standing or above.

17.530 BROADCAST OPERATIONS AND MANAGEMENT (3) Provides students with an understanding of the technical and historical development of American broadcasting. Develops an understanding of the managerial problems that affect operations of a broadcasting station. Acquaints students with the functional structure of American broadcasting. Usually offered every spring. *Prerequisite:* 17.333 recommended, but not required.

17.538 CONTEMPORARY MEDIA ISSUES (3) Examination of investigative reporting, the "new journalism," and other controversial developments affecting the news media. Assessment of how well the press informs the public. Usually offered every spring. *Prerequisite:* junior standing or above.

17.540 AMERICAN NEWSPAPERS (3) Survey of contemporary newspapers. Critical analysis of their editorial and advertising content. Alternative newspapers. Usually offered every fall. *Prerequisite:* permission of instructor.

17.542 AMERICAN MAGAZINES (3) Survey of contemporary popular magazines. Critical analysis of their editorial and advertising content. The impact of magazines on American society. Usually offered every fall. *Prerequisite:* permission of instructor.

17.544 MEDIA ECONOMICS (3) Survey of the business and economic aspects of the media, including sources of revenue, costs, profits, trends in ownership, competition, management, labor, cable television, and public broadcasting. Case studies illustrate topics. Usually offered every fall and every spring. *Prerequisite:* junior standing or above.

17.588 TELEVISION PROGRAMMING (3) Principles of planning radio and television programs and program schedules. Usually offered every spring. *Prerequisite:* 17.381.

COMMUNICATION AND MEDIA STUDIES: MASS MEDIA CONTROLS

17.501 LEGAL ASPECTS OF COMMUNICATION (3) Current legal problems; theory of controls in

journalism, visual communication, television and radio. Analysis of libel suits, copyrights, and infringement. No previous knowledge of law required. Usually offered every term. *Prerequisite:* school permission.

17.507 FREEDOM OF INFORMATION (3) Investigation of access and barriers to information at local, state, national, and international levels. Rights and responsibilities of communication media, government agencies, and the public. *Prerequisite:* junior standing or above.

COMMUNICATION AND MEDIA STUDIES: INTERCULTURAL COMMUNICATION

17.531 INTERNATIONAL COMMUNICATIONS SYSTEMS (3) Communication of news and opinion among nations and under varying types of social, political, and economic systems. Uses of mass media in national development; chief patterns of mass communication throughout the world. Usually offered every term. *Prerequisite:* junior standing or above.

PROFESSIONAL COMMUNICATION CURRICULUM

17.521 EDITORIAL WRITING (3) Supervised writing of various types of editorials and opinion columns on current subjects; analysis of editorials and other commentary; editorial page policies and practices. Usually offered every spring. *Prerequisites:* permission of instructor and junior standing or above.

17.523 ADVANCED PHOTOGRAPHY (4) A multidiscipline approach to emphasizing high technical quality and personal expression. Includes extensive assignment work throughout the Washington area. Usually offered every term. *Prerequisites:* 17.343 and/or permission of instructor.

17.526 ADVANCED FEATURE ARTICLE WRITING (3) Principles and methods of writing feature stories. Individual attention to problems. Students submit articles for actual publication through the *American NewsService*. *Prerequisites:* 17.325 and junior standing or above.

17.532 PUBLICATION LAYOUT AND DESIGN (3) Layout, typography, design, and printing in planning and production of newspapers, magazines, books, brochures, and folders. Usually offered every term. *Prerequisite:* school permission.

17.546 AUDIO-VISUAL COMMUNICATION (3) Problems of communicating through modern audio-visual media. Emphasis upon understanding the media as well as the message. Students prepare materials and gain experience with audio-visual devices and systems. Usually offered every summer. *Prerequisite:* junior standing or above.

17.550 PERSUASIVE COMMUNICATION (3) Contemporary concepts, theories, and research findings in persuasion. Preparation of a promotional campaign portfolio. Usually offered every fall and every spring. *Prerequisite:* junior standing or above.

17.560 POLITICAL COMMUNICATION (3) Application of communication theory to politics. Study of communication practices in election campaigns, political interest groups, federal agencies, and congressional offices. Preparation of an election campaign portfolio. Usually offered every fall.

17.561 ADVANCED WRITING FOR BROADCASTING FILM (3) Writing and criticism of documentary, dramatic, and other types of complex programs for television and film. This course is not required and is offered infrequently. *Prerequisite:* permission of school.

17.565 ORGANIZATIONAL COMMUNICATION (3) Principles of Communication theory within the context of the complex organization. Formal and informal communication networks and problems associated with each. Forms of communication used within organizations. Field research project in a Washington area organization. Usually offered every spring.

17.572 NONVERBAL COMMUNICATION (3) Current research on the influence of biorhythms, artifacts, facial expressions, gestures, posture, space, time, and touch on human interaction. Opportunities for analysis and application of learned principles through in-class exercises, simulations, video-taped sessions, and off-campus field research. Usually offered every spring. *Prerequisite:* junior standing or above.

17.580 COMMUNICATION IN SMALL GROUPS (3) Current research on leadership, problem solving, decision making, deviant behavior, communication networks, and discussion techniques in small group contexts. Opportunities for practical application through video-taped sessions, role-playing exercises, and field research. Usually offered every fall and every spring. *Prerequisite:* junior standing or above.

17.581 BROADCASTING IN EDUCATION (3) Effects which broadcasting and related media have on an American education system whose students exist in media-saturated environment. Also includes consideration of roles, organization, and objectives of formal instructional television; and of recently-developed Public Broadcasting System.

17.582 ADVANCES IN COMMUNICATION RESEARCH (3) Problems in the application of survey and experimental methodologies to selected areas of persuasive, political, organizational, nonverbal, and small group communication. Opportunities to conduct original field research. Usually offered every fall. *Prerequisite:* junior standing or above.

17.589 SEMINAR IN BROADCASTING AND FILM (3) In-depth study of certain areas and problems in broadcasting and film not covered in regular sequence of courses. Topics will vary from semester to semester. This course is not required and is offered infrequently. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* permission of school.

Graduate Courses

17.690 INDEPENDENT STUDY PROJECT IN COMMUNICATION (1-6)*

PROFESSIONAL COMMUNICATION CURRICULUM

17.620 ADVANCED NEWS EDITING (3) Advanced training to develop editorial judgment and skills in processing material for actual publication; study of problems and practices in producing the newspaper, *Northwest*, or *The American NewsService*. Graduate students assigned to supervisory positions. Meets jointly with 17.420. Laboratory arranged. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.

17.624 AMERICAN NEWSERVICE (3) Advanced training in writing news for actual publication, as staff writers for *The American NewsService*, with emphasis on metropolitan area coverage; student field assignments arranged, equivalent to one day a week. Graduate students assigned to supervisory positions. Meets jointly with 17.424. Usually offered every term. *Prerequisite:* permission of instructor.

17.628 ADVANCED BROADCAST JOURNALISM (3) Examination of broadcast practices with emphasis on network evening news. Production and investigative reporting for WAMU-FM (public radio). Also production of news broadcasts for closed circuit television. Broadcast journalists participate in informal seminars. Graduate students assigned to supervisory positions. Meets jointly with 17.428. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.

17.636 GOVERNMENT NEWS REPORTING (3) Field reporting of Washington and suburban community affairs. Intensive in-depth reporting, feature writing, and editing. Usually offered every spring. *Prerequisite:* permission of instructor.

17.654 ADVANCED FILM PRODUCTION AND DIRECTION I (3) An intensive introduction to all aspects of film production and direction, including writing, cinematography, editing, and criticism of motion pictures. Graduate students assigned to supervisory positions. Meets jointly with 17.454. Usually offered every term. *Prerequisite:* permission of instructor.

17.655 ADVANCED FILM PRODUCTION AND DIRECTION II (3) Advanced level projects in film production and direction. Graduate students assigned to supervisory positions. Meets jointly with 17.455. Usually offered every term. *Prerequisite:* 17.654 or permission of instructor.

17.684 ADVANCED TELEVISION AND PRODUCTION I (3) Student projects in television directing and producing. Students will review projects of other students. Graduate students assigned supervisory positions. Meets jointly with 17.484. Usually offered every term. *Prerequisite:* permission of instructor.

17.685 ADVANCED TELEVISION AND PRODUCTION II (3) Advanced training in longer, more sophisticated television programs. Graduate students assigned to supervisory positions. Meets jointly with 17.485. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisites:* 17.684 and permission of instructor.

17.691 GRADUATE INTERNSHIP (1-3) Professional communication work in an off-campus organization appropriate to student's school sequence, which provides student with experience not otherwise available in curriculum. Usually offered every term. *Prerequisites:* Open to graduate students who have completed with distinction most or all of their sequence requirements. Recommendation of advisor and approval of internship director.

* See description under General Curriculum Information in this publication.

- 17.710 SEMINAR IN PUBLIC AFFAIRS (3)** Intensive study of current issues and the making of public policy in Washington with special emphasis on the role of the media. Includes major field research project. Usually offered every fall. *Prerequisite:* permission of instructor.
- 17.720 SEMINAR IN JOURNALISM (3)** Examination of news media performance, investigative reporting, changing definitions of news, and other controversial developments affecting the press. Major research project. Usually offered every spring. *Prerequisite:* permission of instructor.
- 17.721 SEMINAR IN BROADCAST JOURNALISM (3)** Problems, policies, and practices of the broadcast media. Emphasis on broadcast production and individual research. Usually offered every fall. *Prerequisites:* admittance to graduate program in broadcast journalism and permission of the instructor.
- 17.724 REPORTING OF PUBLIC AFFAIRS (3)** Advanced training in writing news for publication with emphasis on coverage of current major issues in federal/metropolitan Washington. Conducted with 17.710. Usually offered every fall. *Prerequisite:* permission of instructor.
- 17.760 METHODOLOGY OF COMMUNICATION RESEARCH (3)** Introduction to the logic of scientific inquiry and to the strategy and content of research in mass communication and public opinion. Training in quantitative techniques for professional communicators. *Prerequisites:* graduate standing and permission of instructor.
- 17.782 BROADCASTING IN THE PUBLIC INTEREST (3)** Responsibilities of the broadcaster in terms of "public interest, convenience, and necessity." Comparison of U.S. and foreign programming. *Prerequisite:* permission of instructor.
- 17.797 MASTER'S THESIS SEMINAR (3)** For students writing thesis in communication. Do *not* register without formal approval of thesis topic by school faculty. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

Economics

CHAIRMAN Pham Chi Thanh

FULL-TIME FACULTY

- Professor* R. Auerbach, N. Barrett, W. D. Bowles, T. Dernburg, C. Morris, P. C. Thanh, H. Wachtel, J. Weaver
- Associate Professor* R. Boddy, R. Muller, L. Sawers, J. Weeks
- Assistant Professor* I. Broder, R. Hahnel, D. Kotz, J. Lyons, P. Shome, J. Wisman

Fields of study include price theory, income theory, history of economic thought, history of economic development, theory of political economy, economic growth and development, human resources economics, international economics, comparative economic systems and Soviet-type economies, monetary economics, public finance and fiscal policy, urban economics, mathematical economics, econometrics, industrial organization, and development banking.

Undergraduate Washington Semester Program in Economic Policy

ADMISSION TO THE PROGRAM This special one-semester program draws on the unique environment of Washington, D.C., to introduce students to the governmental policy-making process as it relates to international and domestic economic policy, through seminars, internships, and research. The program is open to students of The American University and students of affiliated institutions from across the country. Requirements for admission to the program are: (1) nomination by a Washington Semester faculty representative; (2) minimum 2.50 grade-point average on a 4.00 scale; (3) introductory courses in economics; and (4) senior, junior, or second semester sophomore status at the time of participation.

Set	19.393, 19.394
Requirements	
Required	19.390 or 19.391 and one elective chosen from the regular <i>evening</i>
Options	offerings at The American University.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Program in Economics

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Formal admission to the major requires a 2.00 grade-point average and approval of the departmental Undergraduate Advisor.

Set Requirements	19.101, 19.102, 19.300, 19.301, and 19.310 or 42.202.
Required Options	Five courses from department offerings at the 300-level or above. At least one of these must be concerned with the economies of other countries, such as 19.307 or 19.311. Courses 19.390 and 19.396 (nonrecurring selected topics) can be used only with the permission of the Undergraduate Advisor.
Related Requirements	Five courses from the 300-level or above selected from the following fields, with not more than three courses from any one field: anthropology, business administration, education, government, history, international relations, mathematics, philosophy (but not religion), psychology, and sociology.
Recommendations	Students are urged to take 41.101. Students planning graduate work in economics are advised to take mathematics as a related field. Students interested in political economy can develop a concentration by including in their electives such courses as 19.302, 19.307, and 19.315.
Special Opportunities	Double Majors: Because the department requires only 10 courses in economics (and statistics), a student frequently can work out a double or joint major with other fields such as business administration, communication, political science, international relations, and history. See the department's Undergraduate Advisor for details. Honors: Students may sign up for 19.498 and 19.499. In these courses the student shall undertake individual readings and research projects under the guidance of a faculty member. A student can graduate "with honors in economics" upon completion of these courses. For eligibility requirements and further details, see the department's Undergraduate Advisor. The Frank Tamagna Prize of \$100 is awarded annually to an outstanding graduate or undergraduate student in monetary economics as judged by those professors teaching monetary economics. The Fritz Karl Mann Fund is a loan fund for graduate or undergraduate students in economics. The loan fund is administered by the chairman of the department.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Economics.

Master's Program in Economics

ADMISSION TO THE PROGRAM The Graduate Record Examination is recommended. In general, an overall grade-point average of B (3.00 on a 4.00 scale) in the last two years of undergraduate work is required.

Course Requirements	A minimum of 30 semester hours of approved graduate work is required. Required courses include 19.500 and 19.501 with grades of B or better; 19.522 or 19.722 and 19.723 or an approved substitute; and 41.101* or its equivalent. 19.521 is recommended. Students who have not completed the undergraduate prerequisites for 19.500 and 19.501 may take 19.603. 19.603 does not count toward the 30 semester hours of required graduate work. (*41.101 is not a graduate course and does not count towards fulfillment of graduate credit.)
Examinations	Candidates must pass the following comprehensive examinations: (1) A written examination in economic theory. This examination includes both price and income theory. A student who has received grades of A in both graduate theory courses may waive this examination. (2) A written examination in one of the graduate comprehensive examination fields.

	The student must take both examinations during the same examination period. If one examination is failed, it may be taken again separately.
Thesis	Students must complete a master's thesis, two nonthesis seminars, or two independent research projects which have been approved as a nonthesis option, or one seminar and one independent research project.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Economics.

Master's Program in Applied Economics

ADMISSION TO THE PROGRAM Requires a bachelor's degree from an accredited college or university, a 2.50 cumulative grade-point average (based on a 4.00 system) in the undergraduate program, and two letters of recommendation. A student whose undergraduate background does not meet the normal standards for admission may be considered for admission after completion of 12 semester hours of approved graduate course work in nondegree status with at least a 3.00 (B) grade-point average.

Course Requirements	In addition to the prerequisites, the program consists of at least 33 semester hours of graduate course work, including 12 hours of core requirements, 6 hours of course work within one field of concentration, and 15 hours of electives. (1) <i>Prerequisite Courses in Economics</i>: 19.100, 19.300, 19.301 (19.603 may be substituted for 19.300 and 19.301), and 19.310 or 42.202. Waiver of these prerequisites may be granted for well qualified persons with comparable prior education or experience. No graduate credit is given for these courses. (2) <i>Required Courses</i>: 19.500, 19.501, 19.522 or 19.722 and 19.723 or an approved substitute, and 19.783 (may be taken twice). (3) <i>Field of Concentration</i>: To total 6 semester hours as approved by the faculty advisor. (4) <i>Electives</i>: To total 15 semester hours as approved by the faculty advisor.
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Special Opportunities	The M.A. in Applied Economics is designed to serve the professional needs of working people seeking to further their education in their career fields. The program is directed towards economists, program analysts, statisticians, and other persons interested in the application of economic theory to the analysis of current problems. It provides the flexibility needed to enable the student with a full-time job to meet the requirements without sacrificing quality education. Courses are taught by full-time faculty members in the department. Experts in various specialized fields are brought in as visiting speakers and teachers. Courses are scheduled on a flexible basis with some use of intensive and weekend formats, and many are held off campus. Every effort is made to schedule courses in an educationally sound manner while at the same time accomodating those students whose jobs require their frequent absence from Washington.
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Examinations	Students are required to pass one written comprehensive examination in their field of concentration.
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Thesis	Six semester hours research seminar or independent research with a grade of B or better are required. The required 19.783 seminar must be supplemented by an additional three semester hours of seminar or three semester hours of independent research to fulfill the nonthesis option.
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DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Applied Economics.

Master's Program in Development Banking

ADMISSION TO THE PROGRAM Requires a bachelor's degree from an accredited college or university, a 2.50 cumulative grade-point average (based on a 4.00 system) in the undergraduate program, and two letters of recommendation. Students who do not meet the minimum standards for admission may be granted provisional admission upon completion of four courses, taken on a nondegree basis, with a grade of B or better in each.

Course Requirements

In addition to the prerequisites, the program consists of at least 36 semester hours of graduate course work, including 21 hours of core requirements, 6 hours of work in a geographic area of concentration, and 9 hours from a functional area of concentration.

(1) *Prerequisite Requirements*: 10.240, 19.300, 19.301 (19.603 may be substituted for 19.300 and 19.301), and 42.202. Waiver of these prerequisites may be granted for well qualified persons with comparable prior education or experience. No graduate credit is given for these courses. (2) *Required Core Courses*: 10.603, 10.605, 10.606, 19.501, 19.510, 19.525, and 19.560. (3) *Geographic Area of Concentration*: For Latin America the requirements are 19.555 and 29.640; six semester hours of similar courses applicable to another geographic area may be substituted with the advisor's approval. (4) *Functional Area of Concentration*: Nine semester hours must be selected from one of the following fields: (a) Management: 10.607, 10.610, 10.791, 11.792, 55.511, and 55.562; (b) Finance and Banking: 10.671, 19.530, 19.531, 19.532, 19.533, 19.780, and 19.784; (c) International Business: 11.627, 11.629, 11.726, and 12.665; (d) Socio-economic Development: 19.541, 19.561, 19.787, 19.788, 65.530, and 65.550; and (e) *Project Analysis and Evaluation*: 11.685, 11.779, 12.661, 12.672, and 54.684.

Special Opportunities

The program is designed for professionals who plan to follow a career in development banking. The program includes the fields of economics, economic development, business, finance, and financial management, with a geographic area of concentration. The program is essentially interdisciplinary in nature, and is developed by each student with the assistance of the M.A. program advisor in the department. There are no formal tool requirements. Courses are held both on and off campus.

Examinations

One written comprehensive examination is required which will encompass the fields of economic development and the field of concentration.

Thesis

The requirement is satisfied by completing two research seminars. These will be part of the 36 semester hours of graduate work required for the degree. In those functional areas in which no research seminar is offered, the student may, with the advisor's approval, substitute two independent research projects.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Development Banking.

Doctoral Program in Economics

TRACKS Economics and Political Economy

ADMISSION TO THE PROGRAM Two letters of recommendation are required. Graduate Record Examination aptitude tests are recommended but not required. As a rule, students are admitted to the Ph.D. program for the fall semester only; applications should be submitted by the preceding February 1.

Course Requirements

A total of 72 semester hours of approved graduate work is required, including 6 semester hours of 19.690 or approved substitute. See tool requirements below.

Special Opportunities

The Simon Naidel Dissertation Fellowship is awarded annually for the most promising dissertation proposal. The Simon Naidel Prize of \$50 is awarded annually to the graduate student in economics who has written the most outstanding comprehensive examination, as judged by the faculty of the department.

The Frank Tamagna Prize of \$100 is awarded annually to an outstanding graduate or undergraduate student in monetary economics, as judged by those professors teaching monetary economics.

The Fritz Karl Mann Fund is a loan fund for graduate or undergraduate students in economics. The fund is administered by the chairman of the department.

Tools	The tool of research requirement may be fulfilled by completing the following courses with a grade of B or better in each course: (1) <i>Program in Economics</i> : 19.507, 19.508, 19.521, 19.722, and 19.723. (2) <i>Program in Political Economy</i> : 19.507, 19.508, 41.101, and 19.522.
Examinations	An oral qualifying examination in economic theory in the student's chosen fields of concentration is required <i>no later than one semester before the comprehensive examinations are taken</i>. (1) <i>Program in Economics</i>: Four comprehensive examinations are required: 19.01B, 19.01C, and comprehensive examinations in two elective fields. (2) <i>Program in Political Economy</i>: Four comprehensive examinations are required: 19.006, 19.06A, and comprehensive examinations in two elective fields. Comprehensive Examination Fields 19.01A Contemporary Economic Theory: General (required of all M.A. students), 19.01B Contemporary Economic Theory: Price, 19.01C Contemporary Economic Theory: Income, 19.002 History of Economic Thought, 19.003 Economic History of Europe, 19.004 Economic History of the United States, 19.005 History of Economic Development, 19.006 Theory of Political Economy I, 19.06A Theory of Political Economy II, 19.007 Economic Growth and Development, 19.07A Economic Development Policy (not open to students in the Department of Economics), 19.011 Comparative Economic Systems and Soviet-Type Economies, 19.013 Monetary Economics, 19.014 Public Finance and Fiscal Policy, 19.015 Urban Economics, 19.016 Mathematical Economics, 19.017 Econometrics, 19.018 Quantitative Methods in Economics (open only to M.A. candidates), and 19.019 Industrial Organization.
Dissertation	The student obtains approval for his or her dissertation topic from an interested faculty member in the field who then becomes chairman of the dissertation committee. This committee, especially the chairman, supervises the preparation of the dissertation and reviews it upon completion. An oral examination on the dissertation is given after the complete dissertation is submitted.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Economics.

Courses of Instruction

Undergraduate Courses

19.101 INTRODUCTION TO ECONOMICS I (3) An introduction to the basic principles of macroeconomics, stressing topics of national income, unemployment, inflation, economic growth, depression, prosperity, and current issues and controversies of macroeconomics. May be taken for the social sciences distribution requirement. Usually offered every term.

19.102 INTRODUCTION TO ECONOMICS II (3) An introduction to the basic principles of microeconomics and its applications. Covers supply and demand, operations of markets, consumer and enterprise behavior, competition, and monopoly. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite*: 19.101

19.300 PRICE THEORY (3) Theory of relative prices of commodities and productive services under perfect and imperfect competition. Theory of the firm and consumer demand. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites*: 19.101, 19.102.

19.301 INCOME THEORY (3) Concepts and theory of national income determination, employment, and economic growth. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites*: 19.101, 19.102.

19.302 ALTERNATIVE ECONOMIC THEORIES AND INSTITUTIONS (3) Analysis of theories of Karl Marx, Thorstein Veblen, Historical School, Institutionalists, and modern dissenters from orthodox economics. Also an analysis of noncapitalist institutions and economics. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite*: 19.101.

19.304 LABOR ECONOMICS: POVERTY AND HUMAN RESOURCES (3) Application of economic theory to analysis of current labor problems, domestic and foreign. Problems include wage policy and wage differentials, manpower policy, poverty, unemployment and underemployment, discrimination, productivity, industrialization, and union policies. May be taken for the social sciences distribution requirement. Usually offered every term.

19.306 MONEY AND BANKING (3) Role of money and credit in economy. Structure and operations of commercial banks. Federal Reserve System and processes and instruments of monetary policy. Nonbanking financial institutions and structure of financial markets. Elements of monetary theory. "Flow of funds" and its use in monetary analysis. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 19.101.

19.307 POLITICAL ECONOMY OF ECONOMIC DEVELOPMENT (3) Theories of economic development (classical, Marxian, and modern). Simple growth models. Development strategies in agriculture and industry, population problems, and development planning. Imperialism and dependency. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 19.101.

19.308 HISTORY OF ECONOMIC DEVELOPMENT (3) Historical investigation of economic development process using Europe and United States as case studies. Emphasis placed on economic theory to illuminate process of historical development. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 19.101.

19.309 PUBLIC ECONOMICS (3) Introduction to theory of taxation, public expenditure, and fiscal policy. Comparison survey of fiscal institutions in U.S. and abroad. Government approaches to income redistribution and problems of poverty: negative income tax, family allowances, etc. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites:* 19.101, 19.102.

19.310 INTRODUCTION TO ECONOMETRICS (3) Introduction to theory of economic statistics and statistical techniques. Emphasis upon applying statistical models to economic data. Introduction to probability, significance testing, elements of correlation, regression analysis, and testing hypotheses. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 19.101 and 41.100 or equivalent.

19.311 INTERNATIONAL ECONOMICS (3) In fall the course is for noneconomics majors. Class is less theoretical than in spring and more concerned with current trends and policy issues. Spring semester course is designed for economics majors only. It stresses theory of international trade, economic integration, foreign investment and capital movements, and international monetary affairs. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites:* 19.101, 19.102.

19.312 INDUSTRIAL ORGANIZATION (3) Historical and contemporary analysis of industrial market structures and behavior of business firms in U.S. Topics include rise of large corporations, monopoly power and its effects on economic and social welfare, nature of control over large corporations, and governmental regulation of business. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites:* 19.101, 19.102.

19.314 JUNIOR SENIOR SEMINAR (3) Designed to encourage all economics majors to do independent research during junior and senior years. Topics chosen by professors and students involved. Usually offered every spring. *Prerequisite:* junior or senior standing in economics.

19.315 URBAN POLITICAL ECONOMY (3) Economic functions of cities, pollution, metropolitan decentralization, urban growth and development, transportation, urban form and structure, housing markets and discrimination, land-use patterns, urban renewal, local government finance, and poverty. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 19.101.

19.316 THE ECONOMICS OF DISCRIMINATION (3) Review of theories of discrimination and critiques of those theories. Special emphasis on evaluating empirical research design to test major theories of discrimination as they apply to problems of Blacks, Chicanos, American Indians, and women in U.S. economy. Some attention is given to phenomenon of economic discrimination in other economies as well. May be taken for the social sciences distribution requirement. *Prerequisite:* 19.101.

19.317 POLITICAL ECONOMY (3) Examination of interdependence of political, economic, and social forces in society as related to contemporary societal problems. Topics covered: methodology of

political economy, class, power, and stratification in different societies; theory of state and its role in society. May be taken for the social sciences distribution requirement. Usually offered every term.
Prerequisite: 19.101.

19.319 METHODOLOGY OF THE SOCIAL SCIENCES (3) Philosophy and methodology of social sciences with emphasis on economics. Historical and institutional methodologies. May be taken for the social sciences distribution requirement. *Prerequisite:* 19.100.

19.320 HISTORY OF ECONOMIC IDEAS (3) Exposition and analysis of development of economic theory. Emphasis placed on tracing evolution of economic theories out of specific historical contexts. Course covers major figures and schools in economic thought from Adam Smith to present. Attention given to significance to society of having a separate body of thought called economics. May be taken for the social sciences distribution requirement. *Prerequisite:* 19.101.

19.321 INDUSTRIALIZATION, WORK AND WORKERS IN THE UNITED STATES (3) The course traces the development of modern methods of organizing work as the American economy industrialized, the organized and unorganized reactions of workers to this industrialization process, and the response of employers and the government to workers' protests. May be taken for the social sciences distribution requirement.

19.390 INDEPENDENT READING COURSE IN ECONOMICS (1-6)*

19.391 WASHINGTON ECONOMIC POLICY SEMESTER INTERNSHIP (3) Designed to give the student first-hand experience in pursuing directed research within an organization directly involved in field of economic policy. Student must be concomitantly enrolled in 19.393 and 19.394. Usually offered every term.

19.393, 19.394 WASHINGTON ECONOMIC POLICY SEMESTER SEMINAR I, II (3), (3) 19.393 and 19.394 are taken together. As one unit it involves intensive examination of economic policy making process in Washington. Encompasses theoretical analysis of economic problems covered; extensive readings; on-site discussions with economic policy decision-makers; preparation of papers; presentation of alternative paradigms used to understand economic policy. Usually offered every term.

19.490 INDEPENDENT STUDY PROJECT IN ECONOMICS (1-6)*

19.491 INTERNSHIP (1-6) Usually offered every term.

19.498 ECONOMICS HONORS I (3) See department undergraduate advisor. Usually offered every term.

19.499 ECONOMICS HONORS II (3) See department undergraduate advisor. Usually offered every term.

Graduate and Advanced Undergraduate Courses

19.500 PRICE THEORY (3) Theory of resource allocation and price system. Theory of demand, production, and distribution. Market structure and performance. Usually offered every term. *Prerequisite:* 19.300 or permission of department.

19.501 INCOME THEORY I (3) Keynesian model of income determination. Detailed study of consumption, investment, and interest rate theories. Keynesian and classical systems compared. Usually offered every term. *Prerequisite:* 19.301 or permission of department.

19.504 ECONOMIC THOUGHT (3) Major figures in history of economic thought in terms of their social and economic thought and tools of analysis they created. Usually offered every fall. *Prerequisites:* 19.300 and 19.301.

19.506 THEORY OF POLITICAL ECONOMY (3) Rigorous analytical treatment of methodology of political economy, value theory, accumulation process, crises and depressions, and recent developments in value theory. Usually offered every fall.

19.507 ECONOMICS OF AMERICAN DEVELOPMENT (3) Statistical and analytical investigation of long-run behavior of national income, population, saving, investment, consumption, labor productivity, and other factors affecting economic growth in U.S. Concepts of dual economy and balanced growth. Usually offered every spring. *Prerequisite:* permission of department.

19.508 EUROPEAN ECONOMIC DEVELOPMENT (3) Origins and development of capitalism in the

Western world, with emphasis on Britain. Emphasis placed on economic theory to illuminate process of historical development. Usually offered every fall. *Prerequisite:* permission of department.

19.510 COST-BENEFIT ANALYSIS (3) Theoretical and methodological alternatives in identifying economic and noneconomic costs and benefits of development projects. Methods and techniques necessary in carrying out alternative cost-benefit estimates on development projects. Problems of under and overspecification; problems and uncertainties in assessing nonquantifiable impacts. *Prerequisites:* 19.500 and 19.501.

19.512 COMPARATIVE ECONOMIC SYSTEMS (3) Three worlds of development (advanced market, advanced non-market, and developing areas), as represented by U.S., Soviet Union, and patterns of underdevelopment. Meaning of economic systems, and approaches to their study. Course organized primarily around policy makers and their decisions, rather than around ideology or ownership, with emphasis on national goals and policy measures designed to achieve these goals. Usually offered every fall. *Prerequisite:* permission of department.

19.521 MATHEMATICAL ECONOMIC ANALYSIS (3) Mathematical analysis of economic theory and problems. Constrained maxima and minima, linear and nonlinear programming, elementary differential and difference equations, and economic applications. Usually offered every term. *Prerequisite:* 41.101 or equivalent.

19.522 ECONOMETRICS (3) Theory of economic statistics and development of statistical models to be applied to economic data. Probability theory, statistical criteria, hypothesis testing, correlation and regression analysis, and analysis of variance; emphasis upon application to economic data. Usually offered every term. *Prerequisite:* 41.101.

19.525 POLITICAL ECONOMY OF INTERNATIONAL FINANCE (3) Balance of payments accounts, modern theories concerning interrelations between price level, balance of payments, and capital movements. Foreign exchange markets, foreign investments, and capital movements. International financial organizations. International monetary system and its reform; neo-imperialism. Usually offered every spring. *Prerequisites:* 19.306, 19.311, and 19.501.

19.530 CENTRAL BANKING (3) Comparative institutional and policy analysis of central banks. Relations to government and formulation of monetary policy. Quantitative and qualitative instruments. Monetary policy and economic growth in advanced countries. Role of central banks in developing countries. Central banks and international monetary institutions and arrangements. *Prerequisites:* 19.301 and 19.306.

19.531 FINANCIAL MARKETS (3) Comparative analysis of financial markets in advanced and developing countries. Formative factors, nature, and functions. Sectors, institutions, and instruments. Sources and uses of funds and influence of official and international policies and operations. Role in development programs and their behavior under inflation and stabilization conditions. Usually offered every fall. *Prerequisites:* 19.300, 19.301, 19.306.

19.532 MONETARY THEORY AND POLICY (3) Evolution of theories of money and interest in their relation to saving, investment, and income. Concepts of time and liquidity of preference, role of velocity in income determination. Relation of theory to market processes and monetary policies. Role of credit policy in economy. Usually offered every spring. *Prerequisites:* 19.300, 19.301, 19.306. (May not be taken by students who have already taken 19.731 for credit.)

19.533 DEVELOPMENT BANKING (3) Role and functions of specializing in development financing, including public, private, and mixed development banks, with analysis of their respective advantages and disadvantages in light of past experience. Relations of development banks to money and capital markets—competitiveness and compatibility with other financial institutions; sources of funds; use of funds, autonomous and syndicated operations; management of loan, bond and equity financing, etc.; project generation and selection, technical market and social-political evaluations; fund management and project supervision; loan repayment and successive financing and development banking as instruments of development promotion. *Prerequisites:* 19.500 and 19.501.

19.541 PUBLIC ECONOMICS I (3) Rationale for existence of public sector. Theory of public goods. Theory of taxation. Usually offered every fall. *Prerequisites:* 19.500 and 19.501 or permission of instructor.

19.542 PUBLIC ECONOMICS II (3) Analysis of public expenditure. Cost-benefit analysis, budgeting, fiscal policy. Usually offered every spring. *Prerequisites:* 19.541 or permission of department.

19.544 SURVEY OF URBAN POLITICAL ECONOMY (3) Economic functions of cities; pollution,

metropolitan decentralization, urban growth and development, transportation, urban morphology, housing markets and discrimination, land-use patterns, urban renewal, and local government finance. Usually offered every fall. *Prerequisite:* 19.500 or permission of instructor.

19.546 INDUSTRIAL ORGANIZATION (3) Theoretical and empirical investigation of structure of industrial markets and behavior of business firms in U.S. Evaluation of welfare implications of current market structures, business behavior, and related government policies. Usually offered every fall. *Prerequisite:* 19.300 or permission of instructor.

19.551 INTERNATIONAL ECONOMIC THEORY (3) Theory of international specialization, world trade and development, commercial policy, and balance of payments. Usually offered every fall. *Prerequisites:* 19.300 and 19.301.

19.552 STRUCTURE AND OPERATION OF THE SOVIET ECONOMY (3) Rate of economic growth and changing structure of the economy with emphasis on period since 1928. Conditioning factors. Planning techniques and procedures. International economic relations. Usually offered every spring. *Prerequisite:* 19.100.

19.553 ECONOMIC PROBLEMS OF SOUTHERN ASIA: SURVEY (3) Analyzes major economic features, problems and policies, especially as they relate to modernization process, in region that includes India, Pakistan, Bangladesh, Sri Lanka, Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Singapore, Indonesia, and Philippines. *Prerequisite:* permission of department.

19.554 ECONOMIC PROBLEMS OF SOUTHERN ASIA: CASE STUDIES-INDONESIA, MALAYSIA, AND SINGAPORE (3) Analyses, comparisons and contrasts, especially as related to modernization in economies of three countries. Especially recommended for students wishing intensive study in economic development, or in countries concerned. *Prerequisite:* permission of department.

19.555 POLITICAL ECONOMY OF LATIN AMERICAN DEVELOPMENT: THEORIES VERSUS REALITIES (3) Review of development theory. Structural problems; economic, social, and political institutions. External dependency and internal instability; trade, foreign investment, aid, unemployment, population, and technology. Role of integration. Current fiscal and monetary policies.

19.558 CURRENT INTERNATIONAL ECONOMICS PROBLEMS (3) Lecture and discussion course dealing with international trade policy. International economic cooperation and integration, international factor movements (migration, foreign loans, foreign aid) and international monetary system and its reform. Particular attention paid to international economic problems of low-income countries and to U.S. foreign economic policy. *Prerequisite:* 19.311.

19.559 PATTERNS AND PROBLEMS OF ECONOMIC DEVELOPMENT IN ASIA (3) Examination of economic development, its history, trends, and problems in Japan, China, and formerly colonized areas, especially India, Pakistan, and Indonesia. Looks for lessons in Japanese experience and those of more or less socialized countries, and those of more or less open economies. *Prerequisite:* permission of instructor.

19.560 ECONOMIC DEVELOPMENT (3) Patterns, theories, and models of economic development of advanced and underdeveloped economies. Some historical theories and approaches to economic development. Theoretical concepts and issues in development planning. Usually offered every term. *Prerequisites:* 19.300, 19.301 or 19.603.

19.561 DEVELOPMENT PLANNING (3) Concerned with both macro and micro aspects of development planning. Both plan formulation and implementation considered. Theory compared with actual experience. Considers selected developed, less developed, socialist, and mixed-economy countries in Africa, Asia, and Europe as well as the Americas. *Prerequisite:* permission of department.

19.571 LABOR ECONOMICS: THEORY (3) Theories used to explain emergence of labor organization; history of development of labor organization; theories of exploitation and alienation; contemporary theories of wages, employment and prices; collective bargaining in a comparative context; impact of collective bargaining on the American economy; theories and empirical studies of wage differentials. Usually offered every fall. *Prerequisites:* 19.300, and 19.301.

19.590 INDEPENDENT READING COURSE IN ECONOMICS (1-6)*

* See description under General Curriculum Information in this publication.

Graduate Courses

19.603 INTRODUCTION TO ECONOMIC THEORY (3) An intensive introduction to the major analytical tools of price theory and income theory. No credit toward degrees in the Department of Economics. Usually offered every term. *Prerequisite:* 19.100.

19.690 INDEPENDENT STUDY PROJECT IN ECONOMICS (1-6)*

19.691 INDEPENDENT RESEARCH: INTERNSHIP (1-6)

19.702 MACROECONOMIC ANALYSIS (3) Macroeconomic models. Theories of inflation. Monetary and fiscal theories. Theories of growth. Usually offered every spring. *Prerequisites:* 19.501, 41.101.

19.703 MICROECONOMIC ANALYSIS (3) Theory of demand. Theory of production and distribution. Theory of supply. Usually offered every fall. *Prerequisites:* 19.500, 41.101.

19.704 SEMINAR IN ECONOMIC THOUGHT (3) Special topics in the history of economic thought with emphasis on problems of methodology and philosophy. Usually offered every spring. *Prerequisite:* 19.504.

19.706 SEMINAR IN POLITICAL ECONOMY (3) Seminar treats contemporary political economic analysis of monopoly capitalism. Usually offered every spring. *Prerequisite:* 19.506 or permission of department.

19.709 SEMINAR IN ECONOMIC HISTORY (3) Selected topics and research in economic history American and European. *Prerequisites:* 19.507 and 19.508.

19.721 MATHEMATICAL ECONOMIC ANALYSIS (3) Mathematical analysis of economic theory. Systems of difference and differential equations, dynamic optimization techniques such as calculus of variations and optimal control theory, and economic applications. *Prerequisite:* 19.521.

19.722 STATISTICAL FOUNDATIONS OF ECONOMETRICS (3) Topics in distribution theory, including the binomial, gamma, Poisson, and normal distributions. Methods of estimation and hypothesis testing. Selected topics in linear algebra. Usually offered every fall. *Prerequisites:* undergraduate statistics and 41.101 or knowledge of integral calculus.

19.723 ECONOMETRIC METHODS (3) The two variable multivariable regression model and the variations on the standard model including: serial correlation, heteroskedasticity, multicollinearity, stochastic regressors, dummy variables, etc. Simultaneous equations models: estimation and identification. Special topics as time permits. Computer applications. *Prerequisites:* 19.722 or equivalent.

19.770 SEMINAR IN ECONOMIC THEORY: PRICE (3) Theory of market structure and performance. Capital theory and theory of economic growth. Welfare economics. *Prerequisite:* 19.500 or 19.703 or 41.101.

19.771 SEMINAR IN ECONOMIC THEORY: INCOME (3) Advanced analysis of problems in income determination and economic growth. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.772 SEMINAR IN ECONOMIC THEORY: WELFARE (3) Advanced analysis of problems in welfare economics. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.780 SEMINAR IN MONETARY ECONOMICS (3) Economic and monetary trends and their interrelationship. Federal Reserve policies and government financial operations and their effects on money and capital markets. Review of current economic indicators and monetary and financial statistics. Discussion and supervised research. *Prerequisite:* 19.532 or permission of department.

19.783 SEMINAR IN NATIONAL ECONOMIC POLICY (3) Economic aspects of leading problems in public policy. Formulation of national economic policy: planning principles and data bases. Discussion and supervised research. *Prerequisites:* open to advanced Ph.D. students and as terminal seminar for M.A. candidates. Others by permission of department.

19.784 SEMINAR IN INTERNATIONAL TRADE AND FINANCE (3) Beginning with international economic problems of low-income countries, deals with major current problems of the international economy including trade problems and policies, foreign aid, foreign investment, economic integration, U.S.

* See description under General Curriculum Information in this publication.

balance of payments, and international monetary system. *Prerequisite*: 19.551 or permission of department.

19.785 SEMINAR IN MATHEMATICAL ECONOMICS (3) Application of mathematical methods to study of economics. Advanced study of static and dynamic models. *Prerequisites*: 19.521, 41.222, and 41.223 or permission of department.

19.786 SEMINAR IN ECONOMETRICS (3) Advanced quantitative analysis. Construction of stochastic economic models. Problems of specification, estimation, verification, and prediction. *Prerequisites*: 19.723.

19.787 SEMINAR IN PUBLIC ECONOMICS (3) Discussion of the role of taxation and government expenditure. Optimal tax structure. Optimal public expenditure. Role of fiscal policy in stabilization and growth. *Prerequisites*: 19.541 and 19.542 or permission of department.

19.788 SEMINAR IN ECONOMIC DEVELOPMENT (3) Trends in living standards economic planning programs, capital formation, industrial-agricultural techniques, monetary and fiscal structures, income distribution, and foreign trade of underdeveloped countries. *Prerequisite*: 19.307 or 19.560.

19.790 SEMINAR IN CURRENT LABOR PROBLEMS: POVERTY AND HUMAN RESOURCES (3) Analyzes causes and consequences of poverty in American economy. Meaning and measurement of poverty; economics of inequality; income distribution; causes of poverty, including low wages, low incomes, and unemployment; economics of racism; economics of education; policies to alleviate poverty: manpower and education; income maintenance; income redistribution. Usually offered every spring. *Prerequisites*: 19.300 and 19.301.

19.791 SEMINAR IN COMPARATIVE ECONOMIC SYSTEMS (3) Advanced analysis of problems in comparative economics. Discussion and supervised research. *Prerequisite*: 19.512 or permission of department.

19.797 INDEPENDENT RESEARCH: MASTER'S THESIS SEMINAR (1-6) Usually offered every term.

19.799 INDEPENDENT RESEARCH: DOCTORAL DISSERTATION SEMINAR (1-24) Usually offered every term.

School of Education

DEAN Basil P. Korin

FULL-TIME FACULTY

Professor S. Burr (Emeritus), J. W. Devor (Emeritus), C. A. Gross (Emeritus), B. A. Hodinko, F. Holliday (Emeritus), T. J. Landers, P. D. Leedy (Emeritus), N. J. Long, D. R. Thomas, R. Whitfield, S. D. Whitley

Associate Professor F. J. Barros, R. J. Chinnis, A. Gottesman, F. E. Huber, C. Messersmith, D. D. Miller, J. D. Robinson, D. Sadker, M. Sadker, D. Sansbury, S. Smith, C. Van Way (Emeritus)

Assistant Professor L. Cole, N. Dworkin, V. Hare, M. Katz, J. Toomer

The School of Education offers a variety of programs at both the graduate and undergraduate levels. Undergraduates may major in early childhood and elementary education, or take second majors in either secondary education or special education. Upon graduation, they are certified to teach in most states because of the school's widely recognized accreditation rating.

Undergraduates who wish to explore nonteaching careers in education may explore professional careers in education associations, local and federal government agencies, publishing, education for the handicapped, and other related fields. This may be done through the Washington Internship in Education. Both the teacher preparation programs and the Washington Internship in Education program benefit from the rich resources of the Washington area, which is the site of the headquarters of many national education organizations, the education agencies of the federal government, and several urban and suburban school systems.

Students who wish to pursue graduate studies may select from several programs. The Special Education program for the emotionally disturbed recently won the American Association of Colleges for Teacher Education (AACTE) award as one of the outstanding programs in the United States. The

graduate programs in Learning Disabilities emphasize a close and continuing relationship with local schools. Master's, doctoral, and education specialist degrees are offered in the Educational Administration and Supervision program. The Counseling and Student Development graduate program prepare students for counseling-oriented careers in public schools, colleges, and universities, as well as other related institutions.

Undergraduate Program in Early Childhood and Elementary Education

ADMISSION TO THE PROGRAM Admission to the University does not automatically admit one to the program in teacher education.

Continuous Selection Criteria (1) Anyone desiring admission must enroll in the first of a sequence of professional education courses: 21.300 and 21.320. Enrollment in these courses precedes formal application to a teacher education program. Early Childhood and Elementary Education majors normally enroll in these courses during the sophomore year, while those planning to teach in secondary schools must enroll in these courses not later than the fall semester of the junior year.

(2) Prior to enrollment in either 21.350 or 21.340, the student submits his or her application to the school for admission to a teacher education program. Application forms are available at the School of Education. Admission requirements at this stage are (a) a cumulative grade-point average of 2.50 or better, (b) recommendation by 21.300 and 21.320 instructors, and (c) recommendation by the student's academic advisor.

(3) To remain in a teacher education program, a student must maintain a cumulative grade-point average of 2.50 or better.

Set Requirements 21.300, 21.320, 21.350, 21.351, 21.352, 21.353, 21.354, 21.371, and 21.444.

Required Options Five of the following courses: 05.380, 21.250, 21.345, 21.390, 21.427, 21.581, 21.582, 49.310, 49.330, 49.335, 67.340, 67.342, and 67.480 or other courses approved by the Elementary Education Advisor in the School of Education.

Related Requirements (1) Nine semester hours in humanities chosen from literature, art, music, philosophy, religion, and the performing arts. (2) Three approved courses in the natural sciences or mathematics or both. (15.160 and 15.161 are highly recommended and are required for the elementary education major who wishes to attain a concentration in special education.) (3) Nine semester hours in the social sciences chosen from anthropology, economics, history, government, international studies, psychology, and sociology. (4) An academic concentration of at least six courses other than education courses is required. These six courses may be taken in any one department or in interdisciplinary combination such as behavioral sciences, the humanities, and the natural sciences and mathematics. They may overlap with courses taken to satisfy the humanities, natural sciences and mathematics, and social science requirements stated above.

Recommendations Completion of this program is required to meet most state certification requirements in early childhood and elementary education. Even though the professional aspects of the program have been carefully designed, graduation does not assure one a position as a fully certified teacher. The American University does not license one to teach in any given state; such certifications are issued only by a state government agency. The student is responsible for selecting courses to obtain certification in his or her chosen state. Certification requirements should be examined no later than the beginning of the student's sophomore year. The elementary education program is approved by the National Council for Accreditation of Teacher Education (NCATE). State recognition of such accreditation guarantee certification to students of NCATE approved programs. Consult advisor regarding certification matters.

Transportation to Schools It is the responsibility of each student to

provide transportation, either public or private, to his or her student aide, methods, and teaching assignments.

Special Opportunities Students enrolled in this program may also elect to fulfill a second major in Special Education. To do so, students must take the requirements for this program, as specified above, and the following additional courses: 15.160, 15.161, 21.402, 21.444 (7 weeks of the 15 weeks teaching associated with this course must be done in a special education setting), and 21.503. Juniors and seniors may expand the concentration by electing to enroll in 500-level courses pertinent to special education unless otherwise specified by the instructor. Students who wish to be certified in special education will, in most cases, need to take one or two additional courses for this program. The elementary education advisor should be consulted concerning this matter.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Early Childhood and Elementary Education.

Undergraduate Program in Secondary Education

TRACKS Students major in the field in which they plan to teach and take a second major in Secondary Education.

ADMISSION TO THE PROGRAM See the admission requirements for the major in Early Childhood and Elementary Education.

Set Requirements 21.300 and 21.320 (to be taken concurrently), 21.340, and 21.445.

Required Options 21.371 or 21.571 is required for those planning to teach English or social studies, and is highly recommended for other majors in secondary education.

Related Requirements Students must complete a major in the field in which they plan to teach.

Recommendations *Transportation to Schools* It is the responsibility of each student to provide his or her own transportation to student aide, methods, and teaching assignments. Individual requests for specific school assignments cannot be honored.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts or Bachelor of Science with one major in the field in which they plan to teach and a second major in Secondary Education.

Master's Programs in Education: Master of Education

ADMISSION TO THE PROGRAM Applicants should have an undergraduate degree with an overall grade-point average of 2.75 (on a 4.00 scale) based on the last 60 semester hours of work, and a 3.00 or better in education or other major field of specialization, and a satisfactory score on the Graduate Record Aptitude Examination or the Miller Analogies Test. Additional admission requirements may be imposed for concentration in certain areas of study.

Course Requirements The minimum requirement for the M.Ed. degree is 33 semester hours. Candidates select a major from the following: Counseling, Student Development in Higher Education, Educational Administration, Physical Education, and Special Education (with emphasis in either learning disabilities or emotional disturbance). Course work then consists of: (1) 6 semester hours in psychology of education, history of education, sociology of education, philosophy of education, curriculum construction, or analysis of teaching; (2) 15 semester hours in the major field; (3) 21.790; (4) 3 semester hours in statistics or tests and measurements; and (5) 6 additional semester hours. Note: In addition to 21.790, 3 additional semester hours of research, practicum, or internship are to be included in each student's program.

Special Opportunities Master of Education Program for Training Teachers of Emotionally Disturbed Children. Beginning in July, 1969, the United States Office of

Education Bureau of Handicapped Children funded an experimental program designed to train graduate students with no former undergraduate education background to teach emotionally disturbed children. A unique characteristic of this 12 month program is that the trainee spends a summer session at The American University campus taking courses from the School of Education, with the following nine months at a District of Columbia area public school, in an intensive 50-hour week internship-seminar program. Upon completion of this program, the graduates are awarded an M.Ed. degree with a major in Special Education, and meet certification requirements to teach emotionally disturbed children. Fellowships are available. For further information, write: Project Director, M.Ed. Program for Training Teachers of Emotionally Disturbed Children, School of Education, Roper Hall, The American University, Washington, D.C., 20016.

Examinations

Consult the program advisor for details of comprehensive examination requirements.

Thesis

Consult the program advisor for details of thesis requirements.

DEGREE OBJECTIVE Students receive a degree of Master of Education with a major in Counseling, Student Development in Higher Education, Educational Administration, Physical Education, or Special Education.

Master's Programs in Education: Master of Arts

ADMISSION TO THE PROGRAM Same as for the Master of Education.

Course

A minimum of 30 semester hours of course work is required. Candidates select one of the following three options in order to complete the course requirements.

Requirements

Option A For students with teaching certification. (1) 3 semester hours of evaluation of student progress, (2) 3 semester hours in 21.790, (3) 15 semester hours in a department outside the School of Education at the 500-level or above, and (4) 9 semester hours in the School of Education.

Option B For students without teaching certification who wish to obtain certification. (1) 3 semester hours in foundations of education, (2) 3 semester hours in psychology of education, (3) 6 semester hours of student teaching, (4) 3 semester hours of teaching methods, (5) 12 semester hours in a department outside the School of Education, and (6) 3 semester hours of electives.

Option C For students wishing a general education program. (1) 3 semester hours in evaluation of student progress, (2) 3 semester hours in 21.790, and (3) 24 additional semester hours of which at least 9 must be in the School of Education.

Note All course work must be approved by an advisor and must include three semester hours of research, practicum, or internship in addition to 21.790.

Special

Opportunities

Students should consult a School of Education advisor.

Examinations

One comprehensive examination is required.

Thesis

Consult the program advisor for details of thesis requirements.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Education.

Master's Program in Science Teaching

For information about the interdepartmental Master of Science in Science Teaching degree program, see Interdepartmental Science in this publication.

Education Specialist Program in Educational Administration and Supervision

ADMISSION TO THE PROGRAM The program is designed for students who desire to follow an organized plan of graduate work beyond the master's degree but who are not planning to enter a doctoral program. Admission requirements are the same as those for the doctoral programs.

Course requirements	The total Ed.S. program must include a minimum of 30 semester hours beyond the master's degree work and must include 24 semester hours of course work and 6 semester hours of independent study or an internship. A plan of study must be approved by the major faculty advisor before the completion of 12 semester hours of course work.
Examinations	One comprehensive examination in Educational Administration and Supervision.

DEGREE OBJECTIVE Students receive a degree of Education Specialist with a major in Educational Administration and Supervision.

Doctoral Programs in Education

MAJORS The School of Education accepts candidates for the degrees of Doctor of Education and Doctor of Philosophy with majors available in the following areas of study: Counseling and Student Development, Educational Administration, Special Education, Mathematics Education (Ph.D. only), and Science Education (Ph.D. only).

ADMISSION TO THE PROGRAM A bachelor's degree and, in most cases, a master's degree are required for entrance into a doctoral program. In order to gain admission, students should have achieved a satisfactory score on the Graduate Record Aptitude Examination or the Miller Analogies Test and a grade-point average on previous graduate and undergraduate work which is acceptable to the School of Education. Specific standards may be obtained from the School of Education.

Course Requirements	No amount of course work by itself will earn the doctorate, but a minimum of 72 semester hours of graduate credit beyond the bachelor's degree is required of all candidates, with at least 12 of these hours being devoted to the dissertation. The course work must include 21.790 and one graduate level course in statistical methods. Students whose dissertations will involve quantitative research are required to take additional course work in statistics. Specific courses may also be necessary for certain doctoral study areas.
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Advancement to Candidacy	A doctoral student will be advanced to candidacy after presentation of a plan of study to the faculty associated with his major field of study, and after passage of a qualifying examination. The qualifying examination will be taken after completion of nine semester hours of graduate study, at least three of which will be in the candidate's major field of study. Under certain circumstances, the master's comprehensive, if taken at The American University, may be considered to fulfill the requirement of the doctoral qualifying examination.
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Tools	Ph.D. candidates must satisfy one tool of research requirement in statistics and a second in either computer languages, a foreign language or managerial accounting. Ed.D. candidates must satisfy one tool of research requirement in statistics, computer languages, a foreign language, or managerial accounting.
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Examinations	A qualifying examination, as described under advancement to candidacy, must be satisfied. All candidates are required to pass three written comprehensive examinations and one oral (21.090 General) comprehensive examination. Requirements for the written examinations in the various fields of study are:
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- Counseling and Student Development* 21.015 Counseling, 21.016 Student Development, one additional examination either within or outside the School of Education.
- Educational Administration* 21.018 Educational administration, one examination in business administration or public administration, and one

additional examination either within the School of Education or in some other unit of The American University.

Mathematics Education Refer to the Department of Mathematics, Statistics, and Computer Science section of this publication for information on this major.

Science Education Refer to the School of Education for counseling on required examinations. See also the Interdepartmental Science section of this publication.

Special Education 21.010 Learning Disabilities, 21.011 Emotional Disturbances, one additional examination either within or outside the School of Education.

Candidates should consult their advisors concerning the comprehensive examinations and they themselves must make the necessary arrangements with the appropriate department for examinations taken outside the School of Education. Possible comprehensive areas outside the school include, but are not limited to: clinical psychology, history, management, sociology, government, and statistics.

Dissertation

Each candidate must satisfactorily complete and orally defend a dissertation which has been directed by a member of the full-time faculty.

DEGREE OBJECTIVE Students receive either a degree of Doctor of Education or Doctor of Philosophy with a major in Counseling and Student Development, Educational Administration, Special Education, Mathematics Education (Ph.D. only), or Science Education (Ph.D. only).

Courses of Instruction

Undergraduate Courses

21.250 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS (3) Basic mathematical concepts considered, providing an opportunity to acquire an understanding and appreciation of the structure of elementary school mathematics. Tutorial experiences encouraged. Usually offered every term. *Prerequisite:* open to second semester freshmen and above.

21.287 SEXISM IN SCHOOL AND SOCIETY (3) Analysis of sex discrimination with emphasis on educational institutions. Topics include textbooks, school counseling, sex-segregated schools, school personnel behavior, vocational education, and physical education and athletics. Examination of recent corrective attempts including attempts to develop sex-fair textbooks, legal actions such as Title IX of the 1972 Education Amendments, and case studies of model school districts.

21.300 FOUNDATIONS OF EDUCATION (3) Emphasis on the contemporary nature of American education, with special focus on racism, sexism, finance, governance, innovations, and the social context of American education. Lecture, discussion group, and one half-day of field experience in schools. Usually offered every term. *Prerequisites:* sophomore standing, 2.30 grade-point average, 57.100 or 57.110. Must be taken concurrently with 21.320.

21.320 PSYCHOLOGY OF EDUCATION (3) Psychological problems encountered in learning. Nature and control of learning; theories of motivation; development of skills and knowledge; creative learning and critical thinking. Lecture, small group discussion, and one half-day of field experience in schools per week. Usually offered every term. *Prerequisites:* 57.100 or 57.110, grade-point average of 2.30, and sophomore standing. Must be taken concurrently with 21.300.

21.340 METHODS AND MATERIALS IN SECONDARY EDUCATION: GENERAL AND SPECIAL: ENGLISH, SOCIAL STUDIES, MATHEMATICS, AND FOREIGN LANGUAGES (4) General methods, materials, and applications to special school subject fields. Laboratory experiences in the university classroom and in area secondary schools. Students provide their own transportation to field experience assignments. Usually offered every spring. *Prerequisites:* 21.300, 21.320 or equivalent, grade-point average 2.50 (3.00 in the major).

21.342 METHODS OF TEACHING IN SECONDARY SCHOOLS (3) General teaching methods; some opportunity to apply principles to certain specialized subject matter fields. Laboratory experiences in secondary schools in Washington area and in use of educational resources. Students provide their own transportation to field experience assignments. *Prerequisites:* 21.300, 21.321, and grade-point average of 2.50; not offered to students who have had 21.340.

21.345 CHILDREN'S LITERATURE (3) Literature and poetry related to interests and abilities of children and young adults. A study of tradebooks and related materials from viewpoint of their value in developmental process of the individual. Techniques and aids for stimulating reading interests. Use of tradebooks and poetry in school curriculum.

21.350 MATHEMATICS METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (3) Materials and methods for use in teaching elementary school mathematics. Laboratory experiences in university classroom, in area elementary schools, and in the use of other educational resources. Students provide their own transportation to field experience assignments. Usually offered every term. *Prerequisites:* admission to program; 21.300, 21.320 or equivalent; grade-point average of 2.50 or higher.

21.351 SCIENCE METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (3) Methods, materials, and curricula used in elementary school science; basic laboratory skills; safety and legal aspects; field trips; and field experiences. Usually offered every term. *Prerequisites:* admission to program; 21.300, 21.320 or equivalent; grade-point average 2.50 or higher.

21.352 SOCIAL STUDIES METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (3) Lecture, discussion, and practical application of materials and skills appropriate for social studies education of children, preschool through grade six. Field work and practice teaching in local schools. Students must provide their own transportation. Usually offered every term. *Prerequisites:* admission to program; 21.300, 21.320 or equivalent; grade-point average of 2.50 or higher.

21.353 LANGUAGE ARTS METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (3) Analysis and discussion of strategies for the teaching of language arts in the elementary school. Emphasis is on approaches for teaching writing, reading, speaking, and writing skills for elementary school students. There is practical application of teaching approaches in micro-teaching settings and in a field component based in local elementary schools. Usually offered every term. *Prerequisites:* admission to program; 21.300, 21.320 or equivalent; grade-point average 2.50 or higher.

21.354 READING METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (3) Students, through their active participation in the university classroom and subsequent application of knowledge in the field, become familiar with and learn to appreciate the major reading approaches and accompanying materials currently used in public schools. Usually offered every term. *Prerequisites:* admission to program; 21.300, 21.320 or equivalent; grade-point average of 2.50 or higher.

1.371 PSYCHOEDUCATIONAL APPROACHES TO READING INSTRUCTION (3) Equips each student with knowledge of how to teach reading to children. Students learn how to carefully and competently evaluate children's unique strengths and weaknesses, and then take advantage of this information in planning reading programs for children. Usually offered every term.

1.390 INDEPENDENT READING COURSE IN EDUCATION (1-6)*

1.398 DEPARTMENT HONORS, JUNIOR YEAR (3)

1.399 DEPARTMENT HONORS, JUNIOR YEAR (3)

1.402 EDUCATIONAL PROCEDURES (3) Provides introduction to procedures in special education with emphasis on learning disabilities. Attention to perceptual and cognitive development of children and adolescents, their academic and behavioral problems. Emphasis on teaching through children's strengths and interests; remedial approaches for their weaknesses; special techniques of management. Usually offered every term.

1.427 INNER CITY EDUCATION (3) Introduction to urban development and urban schools. Issues of equality and teaching strategies for diverse urban children and youth. School organization to meet urban problems. Five hours of field work per week required. Usually offered every term.

1.444 STUDENT TEACHING: EARLY CHILDHOOD AND ELEMENTARY (15) Observation and teaching, grades kindergarten through six. Conferences with cooperating teachers and University supervisor. Seminars. Students must provide own transportation. Usually offered every term. *Prerequisites:* senior standing; admission to student teaching; successful completion of 21.350 through 21.354.

1.445 STUDENT TEACHING: SECONDARY SCHOOLS (12-15) Observation, participation, and teaching in grades seven through twelve. Conferences with University supervisor and seminars at frequent intervals. Students provide own transportation to student teaching assignments. 15 semes-

ter hours require 15 weeks of student teaching and are to be taken by those who have previously completed 21.340 or equivalent (only exception: foreign language requires only 12 weeks). For those who take 21.340 or equivalent concurrently, 12 semester hours may be taken which require 12 weeks of student teaching. Usually offered every fall. *Prerequisites:* 21.300, 21.320, 21.340 or equivalent; grade-point average of 2.50 (3.00 for major), and admission to a program in teacher education. Applications for student teaching must have been submitted by October 1 or March 1 for the following semester. Note: *Offered fall semester for English, social studies, mathematics, and sciences.* All secondary student teaching is offered once a year, excluding foreign language, music and physical education. Consult school for details.

21.446 ELEMENTARY AND/OR SECONDARY STUDENT TEACHING: ART, MUSIC, DANCE, AND PHYSICAL EDUCATION (6-12) Students desiring kindergarten through twelfth grade certification enroll in 21.446 to arrange student teaching in both elementary and secondary schools. Minimum of six weeks of total fifteen weeks of student teaching must be completed at each level.

21.474 EDUCATIONAL REFORM: MYTH OR REALITY? (3) Analysis of historical developments in American education from standpoint of "educational reform." Traditional and radical interpretations of American educational history; contemporary issues in school reform such as decentralization, community control, "deschooling society," and alternative schools are areas for discussion.

21.490 INDEPENDENT STUDY PROJECT IN EDUCATION (1-6)*

21.491 INTERNSHIP (3-6)

21.498 DEPARTMENT HONORS, SENIOR YEAR (3)

Graduate and Advanced Undergraduate Courses

21.501 LANGUAGE ARTS AND SOCIAL STUDIES CURRICULA IN SPECIAL EDUCATION (2) Examines relationship between teacher and his curriculum and learner and his need system. First semester concentrates on language arts and social studies including following aspects: recognition of teaching of reading as crucial educational responsibility, insight into reading process in relation to principles of learning and child development, materials and techniques for specific learning outcomes, role of language in child's life and interrelationships among various phases of language arts. Practicum experience includes teaching a curriculum under video tape supervision.

21.502 METHODS OF MANAGING INAPPROPRIATE CLASSROOM BEHAVIOR (2) Psychoeducational methods of understanding and managing inappropriate classroom behavior. Techniques such as: groups, problem solving, role playing, and video tape analysis of behavior. *Prerequisite:* restricted to special education majors.

21.503 THEORIES AND PRACTICES IN SPECIAL EDUCATION (2) Theories and methods of re-educating emotionally disturbed children such as psychodynamic behavioral, psychoeducational, educational, and ecological models. Case conferences, guest lectures, group discussion and video tape analysis used as teaching techniques. *Prerequisite:* restricted to special education majors

21.504 METHODS OF PSYCHOEDUCATIONAL ASSESSMENT I (2) Designed to develop appreciation of assessment process by which one attempts to understand meaning of a child's behavior. Examine critical issues and concepts in measurement of behavior, data interpretation, psychoeducational programming and follow-up evaluation. Practicum experiences include observation and participation in classroom activities, group and individual testing, and psychoeducational case conferences

21.505 METHODS OF STUDYING GROUP BEHAVIOR IN SPECIAL EDUCATION (2) Designed along line of process group. Under careful direction of a trained group specialist, trainees have opportunity to explore interpersonal and intrapersonal communications and understand how groups function. Experiences are related to role of a classroom teacher in special education.

21.506 MATHEMATICS AND SCIENCE CURRICULA IN SPECIAL EDUCATION (2) Basic material in math and science through readings, demonstrations, educational games and laboratory exercises. A material developed is implemented in trainees' classroom. Practicum experience includes videotaping of classroom lessons.

21.507 THEORIES OF CHILD DEVELOPMENT (2) Reviews basic theories of child development including psychoanalytic, social learning and cognitive developmental theories. Focuses on suc

* See description under General Curriculum Information in this publication.

concepts as critical periods, stage and phase development, primary and secondary drives and reinforcement, hierarchy of motivational needs, defense mechanisms, developmental lines and self-mastery. Material on early childhood differences in constitution, personality and rearing practices are covered and related to students in trainees' classroom.

21.508 THEORIES AND METHODS OF URBAN EDUCATION CURRICULUM (2) Involves procedures, dynamics and content of inner-city education and way in which this system affects exceptional children who have emotional disturbances. Process of employing this curriculum is implemented through theory and application of methods through practicum experience.

21.509 METHODS OF REMEDIATION IN SPECIAL EDUCATION (2) Reviews remedial principles of teaching children with learning problems. Basic phonetic approaches, construction and administration of informal reading and developmental skill inventories, and teaching programs for skill development. Practicum experience includes individual and group observation and teaching, lesson planning, supervisory conferences, developing teaching resource file, and during second semester, tutoring three times per week.

21.510 PHILOSOPHY OF EDUCATION (3) Examination of thought of leading philosophers on education: Plato, Dewey, and of contemporary schools in philosophy of education such as existentialism and analytic philosophy. Usually offered every fall.

21.511 HISTORY OF EDUCATION IN WESTERN CULTURE (3) Consideration of educational ideas and institutions in Greco-Roman culture, Christian middle ages, Renaissance, and Atlantic nations since 1789; with emphasis on intellectual, social, religious, economic, and political factors shaping educational development.

21.512 HISTORY OF EDUCATION IN THE UNITED STATES (3) European inheritance in colonial education; development of American educational ideas and institutions during nineteenth century. Progressive epoch, and postprogressive period; emphasis on intellectual, social, religious, economic, and political factors shaping American education. Usually offered every spring.

21.513 HISTORY OF HIGHER EDUCATION IN THE UNITED STATES (3) European universities in middle ages. English reformation, and nineteenth century American colleges and universities beginning with Harvard College, but concentrating on history of American higher education since 1869. Usually offered every fall.

21.514 PHILOSOPHICAL ISSUES IN HIGHER EDUCATION (3) Application of analytical philosophical skills upon significant issues in higher education (issues such as accountability, academic freedom, social role of university, and equal educational opportunity).

21.515 COMPARATIVE PHILOSOPHIES OF EDUCATION (3) Consideration of four influential philosophies of education (idealism, realism, instrumentalism, existentialism) through analytical examination of works of several major philosophers (Plato, Aristotle, Dewey, et al.).

21.519 CONTEMPORARY ISSUES IN CHILDREN'S LITERATURE (3) Analysis of various genres in children's literature and of the way contemporary issues are reflected in children's books from preschool through adolescence. Topics analyzed include the portrayal of minority groups, women, the elderly, changing family life styles, death and dying, war and peace, and others. Usually offered every term.

21.520 ADVANCED PSYCHOLOGY OF EDUCATION (3) Psychological principles and research having special relevance to education, including a consideration of motivation, attitudes, mental abilities, and the psychology of school subjects.

21.521 MENTAL HEALTH IN SCHOOLS (3) Analysis of factors promoting mental health, consideration of application of mental health concepts to the educational setting.

21.522 EVALUATION OF STUDENT PROGRESS (3) Selection, construction, administration, scoring, interpretation, and uses of standardized measuring instruments and informal teacher-made tests in evaluating student progress.

21.525 EDUCATIONAL STATISTICS I (3) Descriptive statistics: organization and presentation of data, measures of central tendency and variability, product moment correlation; normal distribution; sampling errors, tests of significance. Basic sampling technique; hypothesis testing. Application of statistical methods to educational and psychological research.

21.530 THE TEACHER AND EDUCATIONAL ADMINISTRATION (3) Administrative duties and relations of the teacher with reference to guidance, curriculum, and financial responsibilities, includes consid-

eration of school work involving cooperation between or among teachers, supervisors and administrative officers. *Prerequisites:* 21.300 and appropriate 300-level methods courses.

21.531 INTRODUCTION TO SCHOOL ADMINISTRATION (3) Introduction to profession: organization and administration of American education at national, state and district school levels; emphasis on school principalship.

21.539 ADMINISTRATIVE EFFECTIVENESS WORKSHOP (3) An instrumented theory-based skills-oriented workshop for administrators dealing with concepts of administrative effectiveness, administrative style awareness, style flexibility, situational diagnosis skills, and team skills. Offered only in series of eight hour days, usually Saturdays. Consult instructor before registration for preworkshop assignment.

21.541 SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN (3) Characteristics of exceptional children and of problems in providing education programs to meet their needs. *Prerequisites:* 21.300, 21.320, and appropriate 300-level methods courses.

21.542 SPECIAL EDUCATION FOR RETARDED PUPILS (3) Class work and group activities for retarded children in public and private schools; emphasizes assessment, identification and program development. *Prerequisites:* 21.300, 21.320, and appropriate 300-level methods courses.

21.543 SPECIAL EDUCATION FOR GIFTED PUPILS (3) Class work, group, and individual activities for gifted children in elementary and secondary schools; emphasis on identification and program development. *Prerequisites:* 21.300, 21.320, and appropriate 300-level methods courses.

21.551 INTRODUCTION TO COUNSELING (3) Designed to give beginning students an overview of fields of counseling, guidance, and psychotherapy. Experience in interviewing skills; information on basic theories of personality, psychotherapy, and counseling. Discussions on roles and qualifications of counselors in various settings and levels of training issues of ethics and confidentiality are reviewed. Course a prerequisite to all other courses in counseling program. *Prerequisites:* graduate standing and permission of instructor; one course in personality theory is recommended.

21.552 ANALYSIS OF THE INDIVIDUAL FOR COUNSELING (3) Overview of appraisal methods and how such methods relate to counseling. Attention given to the interpretation of test data with emphasis on intelligence and LLD measures. Exploration of techniques of psychodiagnostic interviewing and mental status examinations. *Prerequisites:* 21.551 and graduate standing in education or psychology.

21.553 TECHNIQUES AND THEORIES OF COUNSELING IN EDUCATION (3) Counseling theories and techniques. Examination of contemporary theories of counseling, personality, and psychotherapy; discussion of techniques and issues in counseling; practice interviewing and counseling using specific techniques and methods. *Prerequisite:* 21.551 and 21.552; graduate standing in education or psychology.

21.554 THEORY AND TECHNIQUE OF VOCATIONAL-CAREER COUNSELING (3) Administration and interpretation of vocational testing; methods and techniques of preparing and presenting occupational information; research and theories of vocational choice; theories and practices in placement. *Prerequisites:* graduate standing in education and permission of instructor.

21.555 GROUP COUNSELING AND GUIDANCE (3) Examination of major aspects of group process, dynamics of group interaction, and functions of therapeutic group leadership. Exploration of these issues through class lectures and discussions and by becoming an experiential group. *Prerequisites:* 21.551, 21.553.

21.561 INTRODUCTION TO STUDENT DEVELOPMENT IN HIGHER EDUCATION (3) Philosophical, psychological, and sociological bases for student personnel administration. Emphasis on admission orientation, counseling, judiciary functions, student activities, financial aids, housing, health services, career counseling and placement in student personnel services in higher education. Usually offered every fall.

21.566 SEMINAR: CULTURAL FACTORS IN HIGHER EDUCATION (3) Study of the college student and his culture. Emphasis is placed on assessment and evaluation of phenomena in collegiate setting to gain insight into cultural dynamics that bear on student development. Usually offered every summer.

21.571 FOUNDATIONS OF READING INSTRUCTION (3) Broad considerations underlying teaching of reading with special emphasis on reading disability and problems of retarded reader. *Prerequisites:* 21.300, 21.320 or equivalent.

21.572 DEVELOPMENTAL READING (3) Consideration of reading as a developmental phenomenon.

Begins with prelanguage experiences of infancy and considers each linguistic stage of basic causes for reading disability and characteristics of each developmental stage of reader from childhood to maturity of adulthood. *Prerequisite:* 21.571.

21.581 PHYSICAL SCIENCE FOR ELEMENTARY TEACHERS (3) Basic physical science with special reference to science knowledge required of elementary school teachers; laboratory experiences provided. Usually offered every fall.

21.582 BIOLOGICAL SCIENCE FOR ELEMENTARY SCHOOL TEACHERS (3) Basic biology with special reference to science knowledge required of elementary school teachers; laboratory experiences and field trips provided. Usually offered every spring.

21.583 CURRICULUM CONSTRUCTION I (3) Psychological, cultural, and educational bases of elementary and secondary school curriculum and higher education. Practice in construction of curricular materials. Usually offered every fall.

21.584 CURRICULUM AND SUPERVISION IN SCIENCE EDUCATION (3) Historical and philosophical development of science education; curriculum trends; preservice and in-service education; and administrative and instructional issues of interest to individuals in elementary, secondary, and college teaching. Usually offered every spring.

21.585 ENVIRONMENTAL EDUCATION (3) Purposes of environmental education; processes in determining the environmental status of a community; environmental curricula elementary school through college; and modes of instruction. May be substituted by 90.540. See listing under Marine Science Program. Usually offered every summer.

21.586 CURRICULUM AND SUPERVISION IN MATHEMATICS EDUCATION (3) History and development of mathematics education and curriculum development; preservice and in-service education for mathematics teachers; special problems area (student option); field experience.

21.587 ANALYSIS OF CLASSROOM TEACHING (3) For administrators, supervisors, and classroom teachers. Acquaints the student with the research on teacher effectiveness and provides a framework for analysis of teaching styles and strategies. Student encouraged to broaden his own repertoire of teaching behavior as well as refine his perceptions of instructional interaction.

21.588 CLARIFYING PERSONAL VALUES IN EDUCATION (3) Experiential course designed for educator and others involved in helping professions. Theory, experiences, and strategies which help to clarify personal values. Focus on decision making skills-finding alternatives from which to choose, and consequences of the choice. Adaptation of clarifying processes to various educational environments.

21.590 INDEPENDENT READING COURSE IN EDUCATION (1-6)*

Graduate Courses

21.605 METHODS OF PSYCHOEDUCATIONAL ASSESSMENT II (3) Continues 21.504 material. Provides trainees with opportunity to explore techniques of interpersonal and intrapersonal group communication and understanding. Efforts made to relate these explorations to psychological role of teaching. *Prerequisite:* 21.504.

21.622 DEVELOPMENTAL PSYCHOLOGY (3) Psychological, physiological, and sociological aspects of human development stressing applicability to educator and educative process.

21.623 LEARNING THEORIES IN EDUCATION (3) Study of classical and recent theories of learning. Selected research in human learning and principles of learning process.

21.624 EDUCATION AND MODERN SOCIAL PROBLEMS (3) Introduction to educational sociology. Analysis of relationships of schools and society, with emphasis upon modern social problems and impact upon education. *Prerequisite:* graduate standing.

21.625 EDUCATIONAL STATISTICS II (3) Correlational procedures other than Pearson's sampling technique: significance tests: inference. Various ANOVA models. Underlying assumptions, rationale, and application to educational and psychological research. *Prerequisite:* 21.525 or equivalent.

21.626 COMPUTER APPLICATIONS FOR EDUCATIONAL RESEARCH (3) Introduction to data coding and transformations; strategies for use of complex analytic techniques, such as multivariate factor analysis; analysis and interpretation of existing data using computer software.

* See description under General Curriculum Information in this publication.

21.627 ADVANCED TESTS AND MEASUREMENTS (3) Advanced course to give professional competency in development and use of educational and psychological tests and scales. Application of principles of measurement and scaling to both standardized tests and instruments under experimental development.

21.631 SCHOOL-COMMUNITY RELATIONS (3) Aspects of developing and maintaining successful relationships between school administrator, staff, faculty, students, parents, and community.

21.632 PROBLEMS IN EDUCATIONAL MANAGEMENT (3) Case study approach to study of internal school management problems. Problem solving models employed in simulated and real situations.

21.633 FINANCIAL AND BUSINESS ADMINISTRATION FOR SCHOOLS (3) Principles and practices involved in financing public education at federal, state, and local levels. Taxes, bonds, budgets, purchasing systems, accounting systems, and other aspects of school business administration are covered. *Prerequisite:* 21.531.

21.634 ESSENTIALS OF SCHOOL LAW (3) Study of laws affecting education in United States, with special reference to District of Columbia, Maryland and Virginia. *Prerequisite:* 21.531.

21.635 ADMINISTRATIVE AND ORGANIZATIONAL THEORY IN EDUCATION (3) Review of historical and contemporary developments in administrative and organizational theory and research. A thorough multidisciplinary exploration of literature in leader and organizational behavior and effectiveness.

21.636 SYSTEMS-BASED ADMINISTRATIVE PROCESSES IN EDUCATION (3) Study of administrative processes with emphasis on organizing, planning, decision making, communication, delegation, and evaluation. Applications of systems theory, model building simulation, MBO, PPBS, PERT, CPM, OR, OD, and other management tools in education at all levels.

21.637 SCHOOL PERSONNEL ADMINISTRATION (3) Development of school personnel policies, needs assessment, recruitment, selection, hiring, placement, classification, certification, contracts, tenure, separation, salary schedules, personnel welfare, staff development, and union relations. *Prerequisite:* 21.531.

21.638 SCHOOL FACILITIES PLANNING (3) Principles and procedures involved in relating educational philosophies, objectives, curriculum, resources, and projected pupil population to the development of physical facilities. Techniques for needs assessment, development of educational specifications, site selection, finance, and evaluation. Roles of administrators, teachers, consultants, architect, board, and community. *Prerequisite:* 21.531.

21.639 ADMINISTRATION OF EDUCATIONAL MEDIA (3) Assists college and school administrators in acquiring knowledge and skills involved in planning, financing, supervising, staffing and equipping of educational media services at all levels.

21.641 DEVELOPING ORGANIZATIONAL MODELS IN SPECIAL EDUCATION (3) Selected technologies drawn from system planning. Selection based on applicability to education, concerning classroom and clinical planning.

21.643 EARLY EDUCATION FOR HANDICAPPED CHILDREN (3) Conceptual rationale for early intervention. Learning processes in infancy and early childhood. Teaching tactics for exceptional preschool children. Evaluation of early intervention programs.

21.644 DIAGNOSIS AND CORRECTION OF LEARNING DISABILITIES (3) Diagnosing general and specific learning disabilities. Developmental and remedial techniques for correction of learning disabilities. Clinical experience. *Prerequisites:* 21.520, 21.525, and permission of instructor.

21.645 LEARNING DISABILITIES I (3) Examines neurological and developmental aspects of learning disabilities. *Prerequisite:* permission of instructor.

21.646 LEARNING DISABILITIES II (3) Develops diagnostic capabilities in order to select and design materials and programs for learning-disabled children and youth. *Prerequisites:* 21.645.

21.650 PSYCHOPATHOLOGY I (3) Overview of counseling, psychotherapy, and psychopathology from a neoanalytic framework. Issues center around the etiology, psychopathology, symptomology, and remediation of disordered behavior. *Prerequisites:* doctoral standing in counseling or clinical psychology; a course in personality theory and psychotherapy; permission of instructor.

21.655 ADVANCED GROUP COUNSELING (3) Critical examination of client-centered, analytic, transactional, and behavioral approaches to group treatment through readings, films, tapes, and simulated group experiences. *Prerequisites:* 21.555 and permission of instructor.

21.656 ADVANCED PSYCHOLOGICAL EVALUATION (3) Advanced clinical interpretation of selected psychodiagnostic instruments. Students expected to be familiar with administration, scoring, and basic interpretation of WAIS/WISC and Rorschach in addition to other clinical psychodiagnostic instruments. Students present test protocols to discuss finer aspects of advanced clinical interpretation and how these data used in counseling relationship. *Prerequisites:* 21.552, 21.650 and 57.651 or the equivalents, doctoral standing in counselor education or clinical psychology; permission of instructor.

21.657 SUPERVISION OF COUNSELING (3-6) Comparison of various theoretical models underlying supervision. Students become directly involved in supervising paraprofessionals and master degree students as they develop their own skills. *Prerequisites:* 21.659, admission to the doctoral program in counseling; permission of instructor.

21.658 FAMILY SYSTEMS AND FAMILY THERAPY (3) Family is conceptualized as a system. Particular emphasis is placed on interaction pattern between family members, family crises, diagnosis, and family treatment theories and interventions. Particular emphasis is placed on Conjoint and Multiple Impact Therapy approaches, as well as other interdisciplinary and ecological systems of family therapy. *Prerequisites:* 21.551, 21.553, doctoral standing in counseling or psychology; permission of instructor. A course in group counseling is recommended.

21.659 PRACTICUM IN COUNSELING (3-6) Master's Degree Students: 250 hours per three semester hours. Students encouraged (not required) to take course for six semester hours. Students are placed in schools or community agencies, depending on individual's needs and experiences, for approximately three and one-half days per week and return to University for half-day seminar. Systematic development of counseling skills and practical experiences are emphasized. Students must make application for fall semester practicum by July 15 and for spring semester by November 15. Doctoral Degree Students: Limited semester sequential experience (fall then spring) available to doctoral students. Practicum provides opportunities to observe and participate in many of University Counseling Center's activities. Systematic training using Ivey-Carkhuff model as well as training in behavioral and analytic techniques. Students must make application for fall semester practicum by July 15. May be repeated once for credit with permission of instructor. *Prerequisites:* master's students: counseling core courses and permission of instructor; doctoral students: counseling core courses, doctoral standing, and permission of instructor.

21.662 ORGANIZATION AND ADMINISTRATION OF GUIDANCE SERVICES (3) Principles, procedures, and practices in organization and administration of guidance services. Special attention to selecting staff, in-service training of staff, organizational patterns, ways of initiating a guidance program, and means of evaluating the program.

21.663 THE COMMUNITY COLLEGE (3) Community college in United States. Attention focused on organizational patterns, diversity of function, student and faculty, and current problems, of two-year institution. Usually offered every summer.

21.664 PRINCIPLES OF COLLEGE TEACHING (3) Study of teaching on college level. Emphasis on teaching process, college teacher, college student, teaching styles, research, instructional technology and microteaching sessions. *Prerequisite:* permission of instructor.

21.665 ORGANIZATION AND ADMINISTRATION IN HIGHER EDUCATION (3) Theory and practice of organization and administration in higher education. Emphasis on management and leadership, academic affairs, planning techniques, accountability, collective bargaining, legal aspects, business and financial administration, and accounting and reporting in administration in higher education. *Prerequisite:* permission of instructor.

21.666 LEGAL ASPECTS OF HIGHER EDUCATION (3) For advanced graduate students pursuing degrees as administrators in higher education. Study of student-institutional relationship, institutional judicial systems, student rights, records, and campus due-process issues.

21.668 CRITIQUE OF INSTITUTIONAL RESEARCH IN HIGHER EDUCATION (3) Critical examination of prominent institutional research in major divisions of higher education. Reports of Carnegie Commission on Higher Education especially highlighted. Usually offered every spring. *Prerequisite:* permission of instructor.

21.671 ADVANCED SEMINAR IN READING (3) Acquaints students with basic studies and theoretical frameworks relating to language and psycholinguistics in relation to reading, psychology, and physiology of reading, sociology of reading, and instruction and curriculum development in reading.

- 21.673 THE DIAGNOSIS OF READING DISABILITY (3)** Diagnosing causes of reading disability and prescribing proper treatment. Practicum work with children who exhibit reading disability. *Prerequisites:* 21.520, 21.571, 21.572 and permission of instructor.
- 21.676 THE NEW SEX EDUCATION AND COUNSELING (3)** Didactic and experimental course to enable teachers and counselors to develop skills in teaching and counseling in human sexuality for grades kindergarten through graduate school.
- 21.677 WORKSHOP IN SEX COUNSELING SKILLS (3)** Development of group and individual counseling skills essential to counseling of parents, youths, and adults on sex-related problems.
- 21.678 ADVANCED STUDIES IN HUMAN SEXUALITY (3)** Study of literature, research, historical, and cross-cultural aspects of human sexuality as an interdisciplinary study.
- 21.679 INSTITUTE ON READING AND LEARNING DISABILITIES (3)** Guided experiences in remedial reading; diagnosis and correction of learning disabilities with children and youth. To be taken in conjunction with 21.673 and 21.644; thus providing students with work toward meeting requirements for teachers of special education, reading specialists, psychologists, counselors, and classroom teachers.
- 21.682 SCHOOL SUPERVISION (3)** For prospective and in-service supervisors for elementary and secondary schools. Purposes, principles, and techniques of supervision. *Prerequisite:* qualification for a teacher's certificate and/or teaching experience.
- 21.683 SUPERVISION OF STUDENT TEACHERS (3)** Guidance for supervising teachers and others in work with student teachers. Purposes, principles, and techniques of supervision. *Prerequisite:* qualification for a teacher's certificate and/or teaching experience.
- 21.684 CURRICULUM CONSTRUCTION II (3)** Application of curriculum theory and principles to construction of elementary, secondary, and college curriculum guides. Exploration of changes and innovations in instructional programs of schools. Usually offered alternate springs. *Prerequisite:* 21.583 or equivalent.
- 21.690 INDEPENDENT STUDY PROJECT IN EDUCATION (1-6)***
- 21.691 EXTERNSHIP-COUNSELING PSYCHOLOGY (1-6)**
- 21.705 SEMINAR IN EMOTIONAL DISTURBANCE (3)** For doctoral students dealing with current theories and practices in re-educating emotionally disturbed children and youth. Focus on psycho-educational research reported by National Institutes of Mental Health, Children's Bureau, Bureau of the Handicapped, and Council of Exceptional Children Clearing House System.
- 21.765 SEMINAR IN STUDENT DEVELOPMENT IN HIGHER EDUCATION (3)** Critique of issues and problems in contemporary programs of student personnel administration. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.
- 21.769 PRACTICUM IN STUDENT DEVELOPMENT (3-6)** For advanced students in student personnel services in higher education. Students are assigned to area or areas of a program of student personnel services for exploratory administrative case and research experience. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* permission of instructor.
- 21.790 EDUCATIONAL RESEARCH (3)** Fundamentals, methodology, and materials for educational research. Required of all students. *Prerequisites:* 21.525 or equivalent, and admission to a graduate degree program in education.
- 21.791 RESEARCH SEMINAR IN EDUCATION (3)** Seminar-type course in which a comprehensive research paper is required. Designed especially for M. Ed. candidates. A letter grade of B or better required to receive credit for this course. *Prerequisite:* 21.790.
- 21.792 IN-SERVICE TRAINING PROJECT: INTERNSHIP IN EDUCATION (3-12)** Internships in cooperating local school systems as integral part of degree programs in areas such as administration, reading, special education, emotional disturbance, and teaching. Usually offered every term. *Prerequisite:* advisor's approval.
- 21.797 MASTERS THESIS SEMINAR (1-6)** At least three semester hours required of all students working on a master's thesis. Usually offered every term.

* See description under General Curriculum Information in this publication.

21.799 DOCTORAL DISSERTATION SEMINAR (3–12) Total of 12 semester hours are required of all students working on doctoral dissertations. Usually offered every term. *Prerequisite:* to the 21.799 sequence is 21.790 or its equivalent and advancement to candidacy.

English Language Institute

DIRECTOR Robert P. Fox

FULL-TIME FACULTY

Associate Professor R. P. Fox, M. A. G. Hood

The English Language Institute offers programs in English as a second language. These programs, which are offered during the fall, spring, and summer terms, include English workshops available on intensive and semi-intensive bases at all levels of proficiency. These workshops are designed to meet the specific English language needs of foreign students and members of Washington's international community.

All workshops are conducted on a 14-week basis during the fall and spring semesters, and on an 8-week basis during the summer. Normally, students may enroll only at the beginning of a session, and are expected to devote full-time study to the English language.

For those students admitted to degree programs in the University, the institute offers courses in composition and reading at the undergraduate and graduate levels.

ADMISSION TO THE PROGRAM Students may apply directly to the institute by filing an application form in the English Language Institute office, Room 203, McKinley Building. The Office of International Admissions refers newly admitted international students to the institute for testing and placement at the beginning of each semester or session. Once tested, students are placed in classes appropriate to the level of their English proficiency.

Set requirements	English Language Institute evaluations determine the required course sequence and the number of courses which may be taken outside the institute.
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DEGREE OBJECTIVE This program does not lead to a degree. The objective of the English as a second language program is to provide the nonnative speaker of English with the opportunity to improve his or her English language skills to the extent that English is no longer a barrier to academic work.

Courses of Instruction

Undergraduate Courses

74.110 ENGLISH WORKSHOP I: INTENSIVE BASIC ENGLISH (For International Students) (8) Course in basic English for students with little or no knowledge of English. Main emphasis of course is on oral English and includes intensive practice of English grammar and pronunciation. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.111 SUMMER ENGLISH WORKSHOP I: INTENSIVE BASIC ENGLISH (For International Students) (5) Course in basic English for students with little or no knowledge of English. Main emphasis of the course is on oral English and includes intensive practice of English grammar and pronunciation. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.120 ENGLISH WORKSHOP II: INTENSIVE INTERMEDIATE ENGLISH (For International Students) (8) Designed for intermediate students of English. Emphasizes pronunciation and the more complex structures of English, as well as the development of basic reading and writing skills. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.121 SUMMER ENGLISH WORKSHOP II: INTENSIVE INTERMEDIATE ENGLISH (For International Students) (5) Designed for intermediate students of English. Emphasizes pronunciation and the more complex structures of English, as well as the development of basic reading and writing skills. Usually offered every summer. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.130 ENGLISH WORKSHOP III: INTENSIVE HIGH-INTERMEDIATE ENGLISH (For International Students) (8) Intensive course in English for more advanced students; equal emphasis on reading, writing, speaking, and listening. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.131 SUMMER ENGLISH WORKSHOP III: INTENSIVE HIGH-INTERMEDIATE ENGLISH (For International Students) (5) Intensive course in English for more advanced students; equal emphasis on reading, writing, speaking, and listening. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.140 ENGLISH WORKSHOP IV: SEMI-INTENSIVE ADVANCED ENGLISH (For International Students) (5) Semi-intensive course in English for advanced students: emphasis on mastery of the pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.141 SUMMER ENGLISH WORKSHOP IV: INTENSIVE ADVANCED ENGLISH (For International Students) (5) Intensive course in English for advanced students: emphasis on mastery of pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed. Usually offered every summer. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.151 SUMMER ENGLISH WORKSHOP V: SEMI-INTENSIVE ADVANCED ENGLISH (For International Students) (4) Semi-intensive course in English for advanced students: emphasis on mastery of the pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed. Usually offered every summer. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.162 EVENING ENGLISH WORKSHOP: LOW INTERMEDIATE I (For International Students) (4) Semi-intensive, low-intermediate level course in English with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Usually offered every fall. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.163 EVENING ENGLISH WORKSHOP: LOW INTERMEDIATE II (For International Students) (4) Continuation of 74.162. Usually offered every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.164 EVENING ENGLISH WORKSHOP: INTERMEDIATE I (For International Students) (4) Semi-intensive, intermediate level course in English with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Usually offered every fall. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.165 EVENING ENGLISH WORKSHOP: INTERMEDIATE II (For International Students) (4) Continuation of 74.164. Usually offered every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.166 EVENING ENGLISH WORKSHOP: ADVANCED I (For International Students) (4) Semi-intensive, advanced-level course in English with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Usually offered every fall. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.167 EVENING ENGLISH WORKSHOP: ADVANCED II (For International Students) (4) Continuation of 74.166. Usually offered every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.170 SATURDAY ENGLISH WORKSHOP (For International Students) (1) Intermediate level course in English. Equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Language laboratory practice included. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.182 SUMMER EVENING ENGLISH WORKSHOP: LOW-INTERMEDIATE (For International Students) (3) Semi-intensive, low-intermediate level course with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Usually offered every summer. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.183 SUMMER EVENING WORKSHOP: INTERMEDIATE (For International Students) (3) Semi-intensive, intermediate level course with equal emphasis on speaking, listening, and reading

skills; some attention to development of writing skills. Usually offered every summer. Has a non-standard tuition rate. *Prerequisite:* admission by placement test only.

74.184 SUMMER EVENING ENGLISH WORKSHOP: ADVANCED (For International Students) (3) Semi-intensive, advanced level course with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Usually offered every summer. Has a nonstandard tuition rate. *Prerequisite:* admission by placement test only.

74.200 COMPOSITION AND READING I (For International Students) (3) International students whose competence in English makes them eligible for college-level work are assigned to this section so that attention can be given their special language problems. The emphasis is on reading and writing. Usually offered every term. *Prerequisite:* admission by placement test only.

74.201 COMPOSITION AND READING II (For International Students) (3) A continuation of 74.200; emphasis on library and research techniques. Usually offered every term. *Prerequisite:* admission by placement test only.

74.390 INDEPENDENT READING COURSE IN ENGLISH (1-6)*

74.490 INDEPENDENT STUDY PROJECT IN ENGLISH (1-6)*

Graduate and Advanced Undergraduate Courses

74.500 READING AND COMPOSITION FOR GRADUATE STUDENTS I (3) Restricted to graduate international students. Emphasis on library and research techniques and methods of technical writing. Usually offered every fall. *Prerequisite:* admission by placement test only.

74.501 READING AND COMPOSITION FOR GRADUATE STUDENTS II (3) Continuation of 74.500 with emphasis on writing a research paper. Usually offered every spring. *Prerequisite:* admission by placement test only.

74.590 INDEPENDENT READING COURSE IN ENGLISH (1-6)*

Graduate Courses

74.690 INDEPENDENT STUDY PROJECT IN ENGLISH (1-6)*

History

CHAIRMAN James A. Malloy, Jr.

FULL-TIME FACULTY

Professor C. Anthon (Emeritus), R. Beisner, D. Brandenburg, R. Brown, H. Davis (University Professor Emeritus), J. Finan, D. Gondos (Emeritus), J. Joughin, E. Posner (Emeritus)

Associate Professor V. French, I. Klein, A. Lichtman, J. Malloy, C. McLaughlin

Assistant Professor R. Breitman, A. Kraut, J. Minihan, T. Murphy

History is the record of what the present age finds worthy of note in previous times. It covers the full range of human endeavor: the arts and the sciences; politics and the spread of political ideas across boundaries of space and time; economic and technological change; the relationship of individuals and groups to their communities and cultures. Anyone concerned with the contemporary world cannot comprehend its problems without some awareness of how it differs from past eras.

As part of the humanities, history includes all forms of creative thought and expression. At the same time, it requires as much rigor in the use of evidence and as much precision of expression in analysis as any social science.

Undergraduate Program in History

ADMISSION TO THE PROGRAM Students must be approved by the department for formal admission to the major.

Set Requirements 29.480.

*See description under General Curriculum Information in this publication.

Required Options	One course in ancient or medieval history; one course in Russian, Asian, African, or Latin American history; one course in United States history at the 300-level or above; and one course in European or British history at the 300-level or above. Additional courses to make a total of 40 semester hours in history.
Related Requirements	12 semester hours outside the department at the 300-level or above in substantially theoretical courses.
Special Opportunities	Honors in History; Dorothy Ditten Gondos Award; internships.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in History.

Master's Program in History

ADMISSION TO THE PROGRAM Requirements: results of the Graduate Record Examination (Verbal and Quantitative Aptitude); letters of recommendation from two professors with whom work was taken recently; substantial beginning in one foreign language; and favorable judgement of the department's Graduate Committee.

Course Requirements	30 semester hours including two colloquia (6 semester hours) and two research seminars (6 semester hours). Courses may be selected to fulfill either (1) a single-field program in ancient, United States, British, modern European, or Russian history, or (2) two-field programs with a major field (18 semester hours) and a minor field (12 semester hours).
Special Opportunities	Internships at the National Archives.
Tools	Intermediate level college background in one foreign language or equivalent.
Examinations	One comprehensive examination.
Thesis	The thesis requirement is satisfied by two substantial research papers done in research seminars.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in History.

Doctoral Program in History

ADMISSION TO THE PROGRAM Requirements: completion of the M.A. degree in history or in a related field; substantial beginning in one foreign language; results of the Graduate Record Examination (Verbal and Quantitative Aptitude); letters of recommendation from two professors with whom work was taken recently; and favorable judgement of the department's Graduate Committee.

Course Requirements	42 semester hours including one colloquium (3 semester hours), two research seminars (6 semester hours), and a minimum of 12 hours of dissertation seminar.
Special Opportunities	Internships at the National Archives.
Advancement to Candidacy	After completion of comprehensive examinations and at the time of approval of the dissertation proposal.
Tools	Two foreign languages or one foreign language and quantitative methods or statistics.
Examinations	Four comprehensive examinations, three written and one oral. Comprehensive examinations are offered in the areas of ancient history, United States history, modern European history, British history, Russian history, and diplomatic history. One comprehensive examination must be in one of the following: an historical field outside the student's main subject area of concentration, a comparative or cross-disciplinary field, or a field in another discipline.
Dissertation	Required, and oral defense thereof.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in History.

Courses of Instruction

Undergraduate Courses

29.100 HISTORIANS AND THE LIVING PAST (3) What we believe happened in the past, whether true or not, has an influence on what we believe we see today, and what we decide to do in the future. Course explores how the past lives in the present, how we investigate the past, the societal and personal values of studying history. May be taken for the social sciences distribution requirement. Usually offered every fall.

29.201 THE ANCIENT WORLD: THE ANCIENT NEAR EAST (3) Sumer, Akkad, Babylonia, Egypt, Israel, Hittites, Assyria, and Persia. Especial attention to the world-view of these civilizations and their enduring influence on modern society. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

29.202 THE ANCIENT WORLD: GREECE (3) From Minoan Crete through Alexander the Great. Especial attention to literary and artistic masterpieces in their historical settings. Emphasis on ancient sources. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

29.203 THE ANCIENT WORLD: ROME (3) From the Etruscans through Constantine. Especial attention to the interplay of constitution and empire and changing views of ethical conduct. Emphasis on ancient sources. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

29.204 MEDIEVAL EUROPE (3) Exploration of the distinctive medieval world-view as well as consideration of the organization of economic and political institutions, the relationship of secular and ecclesiastical authority, and the creation of new social and religious ideals during the millenium that bridges antiquity and modernity. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

29.205 HISTORY OF MODERN EUROPE I (3) Survey of the years 1500 to 1815, with stress on revolutionary changes in Europe's place in the world, in beliefs about man and God, and in control over physical nature. The "invention" of the modern nation-state in the French Revolutionary and Napoleonic era. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall.

29.206 HISTORY OF MODERN EUROPE II (3) Survey of the years from 1815 to the present, with exploration of why clocks cannot be turned back and the world-wide consequences of nationalism combined with industrialization; analysis of the conflict between middle-class domination and awakening working-class consciousness, of technology run wild, of retreat from reason, and of two world wars, as the bases for understanding today's shrunken Europe and the warring in former colonial lands. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring.

29.207 HISTORY OF THE UNITED STATES I (3) Survey of American history from the founding of the colonies to the Civil War. Includes social and intellectual as well as political history. Analysis of both the development of stable institutions and the forces of division and instability. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every term.

29.208 HISTORY OF THE UNITED STATES II (3) Survey of American history from the end of the Civil War to the present. "Modernization" of America and resulting problems. Growth of U.S. power in international affairs. Roots and development of social and political change in America. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every term.

29.209 WOMEN IN TWENTIETH CENTURY AMERICA (3) An analysis of change and continuity in the recent experience of American women. Includes such themes as the women's suffrage movement, the demise of feminism in the 1920s, the women's liberation movement, male liberation, women in the economy and politics, sexual attitudes, practices and roles, and family life. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement.

29.210 ETHNIC EXPERIENCE IN AMERICA (3) A topical examination of the role of ethnicity in American society, including the debate over whether the U.S. is an ethnic melting pot or an arena of conflict of diverse racial and religious groups. Issues include immigration, theories of assimilation,

development of ghettos, and persistence of ethnic consciousness. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement.

29.221 HISTORY OF ENGLAND I (3) Political, social, and cultural developments in England to 1689. Parliament, common law, civil war, plague, rebellion, concepts of kingship, and the conflict of church and state. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall.

29.222 HISTORY OF ENGLAND II (3) Great Britain since 1689. The rise and fall of the British Empire; cabinet government and limited monarchy; working-class politics and the welfare state; industrialization and mass culture. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring.

29.231 THE EMERGENCE OF MODERN RUSSIA 1462–1881 (3) Survey of Muscovite and Imperial Russian history with emphasis on autocracy, fate of peasantry, economic and cultural developments, and the expansion of the Russian state. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall.

29.232 REVOLUTIONARY AND SOVIET RUSSIA, 1881–1976 (3) Focus on the Russian revolutionary movement, rise of industrialization, revolutions of 1905 and 1917, and internal political, social, and economic development of Soviet Russia. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring.

29.241 COLONIAL LATIN AMERICA (3) Conquest and change in Indian civilization; imperial politics; race and class; Indian labor and the Black legend; imperial economic relations; imperial reform and revolution. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

29.242 LATIN AMERICA SINCE INDEPENDENCE (3) Problems in creating nations; militarism, dictatorship, and democracy; sources of underdevelopment; reform and revolution in twentieth century. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

29.250 MODERN ASIA (3) History and culture of the great Asian civilizations during past two centuries. Analyzes Asian societies at time of advent of the West in Asia and Western impact, cultural and social change, rise of Asian nationalism, recent revolutions, politics, and international relations. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement.

29.300 ANCIENT STUDIES (3) Topical and chronological courses in ancient history: Greece in the Age of Tyrants; Classical Greece; Alexander the Great; The Burden of Success—The Failure of the Roman Republic; Principate to Patriarchy—The Roman Empire; Comparative Causes of War in Ancient Historiography; Major Personalities of Classical Antiquity; Silent Peoples of Antiquity—Women, Children, and Slaves. May meet jointly with 29.600. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term.

29.310 THE ANCIENT REGIME IN EUROPE (3) Attention to the "new" or total history of the late sixteenth century and of the seventeenth and eighteenth centuries in Europe; demography, family and society, climate, disease, famine, and economic life. May meet jointly with 29.610. May be taken for the arts and humanities distribution requirement.

29.312 ERA OF THE FRENCH REVOLUTION (3) Examination of the French Revolution of the late eighteenth century in two ways: first as a French phenomenon and, second, as an aspect of Western history in general. May meet jointly with 29.612. May be taken for the arts and humanities distribution requirement. Usually offered alternate years.

29.314 EASTERN EUROPE SINCE 1815 (3) Examines the impact of nationalism, the fate of the peasantry, ethnic hostilities, the First World War, the emergence of nation states, and the Soviet domination of Eastern Europe. May meet jointly with 29.614. May be taken for the social sciences distribution requirement. Usually offered alternate years.

29.315 FRANCE SINCE THE REVOLUTION AND NAPOLEON (3) Main lines of development into politics, society, and economic life. Conflicts between tradition and innovation, and between authority and liberty. Survival of pre-Revolutionary characteristics. The marriage in modern times between political radicalism and social conservatism. Twentieth century collapse and France's striking revival since the Second World War. May meet jointly with 29.615. May be taken for the social sciences distribution requirement. Usually offered alternate years.

29.316 GERMANY, 1848–1933 (3) The revolutions of 1848 fail to unify Germany. Bismarck and the Prussian army succeed. The new Germany produces Prussian militarism, socialism, youth movements, and an unsuccessful Weimer Republic. May be taken for the arts and humanities distribution requirement. May meet jointly with 29.616.

29.318 NAZI GERMANY (3) The political, social, and economic conditions that made it possible for Hitler to take power. The nature of Nazi rule. World War II from the Nazi side and the Holocaust from that of the Jews. May meet jointly with 29.618. May be taken for the social sciences distribution requirement.

29.319 EUROPEAN DIPLOMACY AND WAR: NAPOLEON TO HITLER (3) Traces European diplomacy and war from the Napoleonic era through Metternich, the Crimean War, Italian and German unification, the Bismarckian system, world imperialism, the two world wars and peace settlements. Particular attention to the nature of international relations and the balance of power. May meet jointly with 29.619. May be taken for the social sciences distribution requirement.

29.321 SOCIAL EFFECTS OF EUROPEAN INDUSTRIALIZATION (3) Shifts in work styles and changes in the quality of life with the mechanization of production in England and on the Continent. Effects on rural and on urban life. Focus both on alterations in social structure and on individual experiences. Time-lags in industrializing among states and their possible social significance. May meet jointly with 29.621. May be taken for the social sciences distribution requirement. Usually offered alternate years.

29.325 DEGAULLE'S REPUBLIC AND BEYOND (3) Tradition and innovation in the Fifth Republic, with emphasis on parties, interest groups, and social structure in the recent French past. Foreign and domestic turning points—as in 1958, 1962, and 1968—and changes since 1969 in a France without DeGaulle. May meet jointly with 29.625. May be taken for the social sciences distribution requirement. Usually offered alternate years.

29.326 EUROPEAN SOCIETY IN THE NINETEENTH AND TWENTIETH CENTURIES (3) Relationships among traditional social groups and the emergence of new classes, new cultural patterns, and new aspirations. Impact of altered birth and death rates, urbanization, technology, education, and other forces stimulating change. New grievances, mass culture, and the growth of alienation. Interest groups, the consumer society, and the "New Europe." May meet jointly with 29.626. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered alternate years.

29.327 TWENTIETH CENTURY EUROPE (3) In this century Europe has experienced two major wars, one wave of Communist revolution, a violent reaction in the form of fascism, and the horror of mass extermination. Yet Europe today is quite prosperous, and there are better links between the Western countries and their Communist counterparts in the East than we could have imagined two decades ago. There is something in the European past that gives the continent a certain resilience. May meet jointly with 29.627. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered alternate years.

29.329 EUROPEAN THOUGHT AND IDEOLOGY (3) Topical and chronological studies offered on a rotational basis. Examples include: The Enlightenment and Nineteenth Century Intellectual Currents. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term.

29.330 COMPARATIVE STUDIES IN EUROPEAN HISTORY (3) Topical and chronological studies offered on rotational and occasional bases. Example: Death in History. May meet jointly with 29.630. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every term.

29.331 MODERN REVOLUTIONS (3) Discusses the theory, patterns, and practice of twentieth century revolutions; and the revolutionary tradition stemming from the Enlightenment, French Revolution, and Marxism. Then treats in detail the Russian, Nazi, Chinese, Vietnamese, and Cuban Revolutions, and considers the impact of revolutions and the revolutionary potential of modern industrial societies. May meet jointly with 29.631. Usually offered alternate years.

29.332 CONTEMPORARY HISTORICAL STUDIES (3) Topical courses offered on rotational and occasional bases: Democracy and Totalitarianism; Imperialism, Racism, and the Third World; Psychohistory. May meet jointly with 29.632. May be taken for the social sciences distribution requirement. May be repeated for credit within the same term; topic must be different.

29.333 TUDOR-STUART ENGLAND (3) England in the sixteenth and seventeenth centuries. Topics examined include the Protestant Reformation in England, the conflict between king and Parliament, the Civil War, Puritanism, and the Glorious Revolution. May be taken for the arts and humanities distribution requirements. May meet jointly with 29.633.

29.334 VICTORIAN ENGLAND (3) Examines the many threats to traditional beliefs and social patterns which emerged in the nineteenth century. Subjects considered include the impact of Darwinism on religion, the emergence of working-class politics, the campaign for female suffrage, discontent in Ireland, and the growth of empire. May meet jointly with 29.634. May be taken for the arts and humanities distribution requirement.

29.335 TWENTIETH CENTURY ENGLAND (3) Has England declined to a third-rate power? The course analyzes England's changing status in the twentieth century: the rise to prominence of the Labour Party, the Depression, the experience of the Second World War, loss of empire, and contemporary British culture. May be taken for the arts and humanities distribution requirement. May meet jointly with 29.635.

29.336 HISTORY OF IRELAND (3) Survey of Irish history from the Gaelic invasions to the present, focusing on the development of Irish cultural and national identity. May be taken for the arts and humanities distribution requirement. May meet jointly with 29.636.

29.337 BRITISH STUDIES (3) Topical and chronological courses in British history, offered on a rotating basis, at least one per semester: Hanoverian England; Edwardian England; The British Working-Class Experience; Popular Culture in Modern Britain; Popular Rebels in Britain. May meet jointly with 29.637. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every term.

29.340 LATIN AMERICAN STUDIES (3) Topical and chronological courses in Latin American history offered on a rotational basis: Diplomatic History of Latin America; Twentieth Century Diplomacy of the Great Powers of Latin America; Latin American Intellectual History; May meet jointly with 29.640. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term.

29.345 RUSSIAN STUDIES (3) Topical and chronological courses in Russian history, offered on a rotating basis. Russian Social History; Russian Revolutionary Tradition; USSR: Dissidents and Dictators; Russia and the West, 1472–1900; Russia in War and Revolution, 1905–1917; Twentieth Century Russian Diplomacy. May meet jointly with 29.645. Each course will be offered at least once every two years. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every term.

29.355 ASIAN STUDIES (3) Topical and chronological courses in Asian history, offered occasionally as faculty resources permit: China: Confucius to Mao; History of Japan. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement.

29.356 HISTORY OF INDIA I (3) Broad survey, by topics, not chronological, of Indian civilization through period of Moghul rule, ending in eighteenth century. Discussions center on such themes as kingship, social organization, laws, religious thought, economic institutions, aesthetics, and external relations. Diversified readings expose students to contributions of major historians working in fields covered. May meet jointly 29.656. Offered occasionally as faculty resources permit. May be taken for the arts and humanities distribution requirement.

29.357 HISTORY OF INDIA II (3) At end of Moghul rule India gradually entered modern phase of its history. Traces this progression in politics (under British auspices), in social change (under Indian sponsorship), and in terms of economic behavior and international relationships. Theme is an effort to grasp meaning of contemporary Indian civilization through study of its recent past. Meets jointly with 29.657. Offered occasionally as faculty resources permit. May be taken for the arts and humanities distribution requirement.

29.360 COLONIAL AMERICA (3) Covers the period from 1492 to 1763. Traces the founding and development of England's North American colonies, emphasizing the original impulses and methods of colonization; Indian peoples and conflict; non-English immigration; the genesis and African background of the slave trade and slavery; and the creation of a dominant English culture in an ethnically and racially diversified society. May meet jointly with 29.660. May be taken for the arts and humanities distribution requirement. Usually offered every year.

29.361 ERA OF THE AMERICAN REVOLUTION (3) Deals indepth with the political and social history of the American Revolution, emphasizing such topics as the genesis of the revolutionary conflict, the Revolution as a "republican revolution"; the Revolution's ideological and social results and their impact abroad; and the formation of the federal constitution as the Revolution's finest transforming accomplishment. May meet jointly with 29.661. May be taken for the arts and humanities distribution requirement.

29.362 THE NEW REPUBLIC (3) Covers the period 1789–1850. Traces the new republic's political consolidation during its first critical decades; its physical, economic, and political transformation by continental expansion, the transportation and industrial revolutions, and the creation of a mass democracy; and the first confrontations over slavery in 1832–33 and 1848–50. May meet jointly with 29.662. May be taken for the arts and humanities distribution requirement.

29.363 CIVIL WAR AND RECONSTRUCTION (3) Chronological coverage from the Compromise of 1850 to the final withdrawal of federal troops from the South in 1877. Topics include antebellum reform, sectional conflict, black slavery, secession, and postwar racial and political problems. Political and social issues are emphasized, rather than a narrative of battles and skirmishes. May meet jointly with 29.663. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

29.365 EMERGENCE OF MODERN AMERICA (3) Drawing on history and related disciplines, considers themes in the modernization of America: the rise of corporations, the influx of immigrants from southern and eastern Europe, the rejection of traditional philosophy, the sexual revolution, technological innovation, and the new politics of race. May meet jointly with 29.665. May be taken for the social sciences distribution requirements.

29.366 TWENTIETH CENTURY AMERICA (3) Life in the twentieth century is different from all other periods of our past. To understand why requires an examination of the explosion of science and technology, the growth of government, America's increasing involvement in the world, the multiplication of protest and liberation movement, the new politics, and neo-Keynesian economics. May meet jointly with 29.666. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement.

29.367 TURNING POINTS IN AMERICAN DIPLOMATIC HISTORY (3) A selective one-semester survey emphasizing those episodes in the history of American foreign relations that were especially important in influencing persistent patterns in this nation's role in international relations. Possible examples: Neutrality in 1793, War of 1812, Spanish-American War, World War I, Pearl Harbor, Cuban Missile Crisis, and Vietnam. May be taken for the arts and humanities distribution requirement. May meet jointly with 29.667.

29.368 WORLD WAR II: THE AMERICAN EXPERIENCE (3) How the United States got into World War II, its diplomatic strategy, and decisions. United States military efforts and leadership. The experience of G. I. Joe. Society and politics at home. Ending the war and approach of the Cold War. Films, television, tapes, and guest speakers. May meet jointly with 29.668. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered alternate falls.

29.369 OTHER WARS: COLD, KOREA, AND VIETNAM (3) Origins and development of the Cold War. "Revolution" of American diplomacy in the Truman administration (Truman Doctrine, Marshall Plan, and NATO). Korean War. The Vietnam disaster. Diplomacy, military history, dissent, and the impact of the "other wars" on American politics, economy, intellectual life, and society at large. Visual media and guest speakers. May meet jointly with 29.669. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered alternate falls.

29.370 QUANTIFICATION IN HISTORY (3) Presumes no mathematical or statistical expertise. Explores the application of statistical procedures as they affect historical research. Includes both theory and historical examples. May meet jointly with 29.670.

29.372 THE CITY IN HISTORY I (3) Urban development from Ur to the present with emphasis on physical planning, the city as a creative environment, economic development, and the city's role in history. May be taken for the arts and humanities distribution requirement.

29.373 THE CITY IN HISTORY II (3) The American city in comparative context. Its development from the seventeenth century to the present, with emphasis on economic development, physical planning, the park movement, the spread of suburbs, and the impact of transportation. May be taken for the arts and humanities distribution requirement.

29.374 HISTORY OF AMERICAN THOUGHT I (3) Great American thinkers in their social and philosophical contexts from the Puritans to the romantics. May meet jointly with 29.674. May be taken for the arts and humanities distribution requirement.

29.375 HISTORY OF AMERICAN THOUGHT II (3) Great American thinkers in their social and philosophical contexts from the Social Darwinists to the present. May meet jointly with 29.675. May be taken for the arts and humanities distribution requirement.

29.376 AMERICAN SOCIAL HISTORY I (3) A chronological approach to social factors in American national development from the colonial period to the Civil War. Issues include family structure, immigration, slavery, ethnicity, westward expansion, and sectionalism. May be taken for the social sciences distribution requirement.

29.377 AMERICAN SOCIAL HISTORY II (3) Examination of American society as it has evolved since the Civil War. Topics include modernization, industrialization, immigration, and the post-World War II crises: fragmentation of the nuclear family, urban decay, and racial conflict. May be taken for the social sciences distribution requirement.

29.378 GROWTH AND PROCESS IN AMERICAN HISTORY (3) Topical and chronological courses stressing continuities and long-range developments in American history, offered on a rotating basis: Sample topic: Black Consciousness in America; May meet jointly with 29.678. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every term.

29.379 CONFLICT AND CRISIS IN AMERICAN HISTORY (3) Topical and chronological offerings with focus on turning points and conflicts in American history, offered on a rotating basis. May meet jointly with 29.679. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every year.

29.380 HISTORY OF ARCHIVAL ADMINISTRATION (3) Nature of archives and concepts of archival administration. Comparative survey of history and present practices in principal countries of the world, with special emphasis on U. S. Meets jointly with 29.680. Usually offered every fall.

29.381 ADMINISTRATION OF MODERN ARCHIVES (3) Nature, value, and use of public and private archives. Principles and techniques for appraisal, preservation, arrangement, description, and reference service for archives, personal papers, and historical manuscripts. Survey of American archival agencies. Meets jointly with 29.681. Usually offered every spring.

29.390 INDEPENDENT READING COURSE IN HISTORY (1-6)*

29.450 SELECTED TOPICS IN HISTORY AND SOCIETY (3) Particular themes in or aspects of history and social change, in which relatively limited but vital areas of historical development are explored in depth. Sample topic: Napoleon, Metternich, and Bismarck. May meet jointly with 29.650. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement.

29.480 MAJOR SEMINAR (6) Methods and materials for historical research and writing, with special emphasis on resources in the Washington area. Students design, research, and prepare a historical research paper. Required of majors in history. Should be taken during the spring semester of the junior year or during the senior year. Usually offered every term.

29.490 INDEPENDENT STUDY PROJECT IN HISTORY (1-6)*

29.491 INTERNSHIP (1-6) Usually offered every fall and every spring.

Graduate and Advanced Undergraduate Courses

29.550 INSTITUTE IN ADMINISTRATION OF MODERN ARCHIVES (3) Nature, value, and use of public and private archives. Principles and techniques for appraisal, preservation, arrangement, description, and reference for archives, personal papers, and historical manuscripts. Offered by the Department of History in conjunction with National Archives and Records Service. Usually offered every term.

29.590 INDEPENDENT READING COURSE IN HISTORY (1-6)*

* See description under General Curriculum Information in this publication.

Graduate Courses

Courses numbered 29.600 through 29.681 meet jointly with courses at the 300-level. Registration at the 600-level implies graduate level assignments and higher expectations regarding performance.

29.600 ANCIENT STUDIES (3) See 29.300 for description. May meet jointly with 29.300. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.610 THE ANCIENT REGIME IN EUROPE (3) See 29.310 for description. May meet jointly with 29.310. Usually offered alternate years.

29.612 ERA OF THE FRENCH REVOLUTION (3) See 29.312 for description. May meet jointly with 29.312. Usually offered alternate years.

29.614 EASTERN EUROPE SINCE 1815 (3) See 29.314 for description. May meet jointly with 29.314. Usually offered alternate years.

29.615 FRANCE SINCE THE REVOLUTION AND NAPOLEON (3) See 29.315 for description. May meet jointly with 29.315. Usually offered alternate years.

29.616 GERMANY, 1848–1933 (3) See 29.316 for description. May meet jointly with 29.316.

29.618 NAZI GERMANY (3) See 29.318 for description. May meet jointly with 29.318.

29.619 EUROPEAN DIPLOMACY AND WAR: NAPOLEON TO HITLER (3) See 29.319 for description. May meet jointly with 29.319.

29.621 SOCIAL EFFECTS OF EUROPEAN INDUSTRIALIZATION (3) See 29.321 for description. May meet jointly with 29.321. Usually offered alternate years.

29.625 DEGAULLE'S REPUBLIC AND BEYOND (3) See 29.325 for description. May meet jointly with 29.325. Usually offered alternate years.

29.626 EUROPEAN SOCIETY IN THE NINETEENTH AND TWENTIETH CENTURIES (3) See 29.326 for description. May meet jointly with 29.326. Usually offered alternate years.

29.627 TWENTIETH CENTURY EUROPE (3) See 29.327 for description. May meet jointly with 29.327. Usually offered alternate years.

29.629 EUROPEAN THOUGHT AND IDEOLOGY (3) See 29.329 for description. May meet jointly with 29.329. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.630 COMPARATIVE STUDIES IN EUROPEAN HISTORY (3) See 29.330 for description. May meet jointly with 29.330. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.631 MODERN REVOLUTIONS (3) See 29.331 for description. May meet jointly with 29.331.

29.632 CONTEMPORARY HISTORICAL STUDIES (3) See 29.332 for description. May meet jointly with 29.332. May be repeated for credit within the same term; topic must be different.

29.633 TUDOR-STUART ENGLAND (3) See 29.333 for description. May meet jointly with 29.333.

29.634 VICTORIAN ENGLAND (3) See 29.334 for description. May meet jointly with 29.334.

29.635 TWENTIETH CENTURY ENGLAND (3) See 29.335 for description. May meet jointly with 29.335.

29.636 HISTORY OF IRELAND (3) See 29.336 for description. May meet jointly with 29.336.

29.637 BRITISH STUDIES (3) See 29.337 for description. May meet jointly with 29.337. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.640 LATIN AMERICAN STUDIES (3) See 29.340 for description. May meet jointly with 29.340. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.645 RUSSIAN STUDIES (3) See 29.345 for description. May meet jointly with 29.345. May be repeated for credit within the same term; topic must be different. Usually offered every term.

29.656 HISTORY OF INDIA I (3) See 29.356 for description. May meet jointly with 29.356.

29.657 HISTORY OF INDIA II (3) See 29.357 for description. May meet jointly with 29.357.

- 29.660 COLONIAL AMERICA (3)** See 29.360 for description. May meet jointly with 29.360. Usually offered every year.
- 29.661 ERA OF THE AMERICAN REVOLUTION (3)** See 29.361 for description. May meet jointly with 29.361.
- 29.662 THE NEW REPUBLIC (3)** See 29.362 for description. May meet jointly with 29.362.
- 29.663 CIVIL WAR AND RECONSTRUCTION (3)** See 29.363 for description. May meet jointly with 29.363. Usually offered alternate falls.
- 29.665 EMERGENCE OF MODERN AMERICA (3)** See 29.365 for description. May meet jointly with 29.365.
- 29.666 TWENTIETH CENTURY AMERICA (3)** See 29.366 for description. May meet jointly with 29.366.
- 29.667 TURNING POINTS IN AMERICAN DIPLOMATIC HISTORY (3)** See 29.367 for description. May meet jointly with 29.367.
- 29.668 WORLD WAR II: THE AMERICAN EXPERIENCE (3)** See 29.368 for description. May meet jointly with 29.368. Usually offered alternate falls.
- 29.669 OTHER WARS: COLD, KOREA AND VIETNAM (3)** See 29.369 for description. May meet jointly with 29.369. Usually offered alternate falls.
- 29.670 QUANTIFICATION IN HISTORY (3)** See 29.370 for description. May meet jointly with 29.370.
- 29.674 HISTORY OF AMERICAN THOUGHT I (3)** See 29.374 for description. May meet jointly with 29.374.
- 29.675 HISTORY OF AMERICAN THOUGHT II (3)** See 29.375 for description. May meet jointly with 29.375.
- 29.678 GROWTH AND PROCESS IN AMERICAN HISTORY (3)** See 29.378 for description. May meet jointly with 29.378. May be repeated for credit within the same term; topic must be different. Usually offered every term.
- 29.679 CONFLICT AND CRISIS IN AMERICAN HISTORY (3)** See 29.379 for description. May meet jointly with 29.379. May be repeated for credit within the same term; topic must be different. Usually offered every year.
- 29.680 HISTORY OF ARCHIVAL ADMINISTRATION (3)** See 29.380 for description. Meets jointly with 29.380. Usually offered every fall.
- 29.681 ADMINISTRATION OF MODERN ARCHIVES (3)** See 29.381 for description. May meet jointly with 29.381. Usually offered every spring.
- 29.690 INDEPENDENT STUDY PROJECT IN HISTORY (1-6)***
- 29.691 INTERNSHIP (1-6)** Usually offered every fall and every spring.

COLLOQUIA

- 29.721 COLLOQUIUM IN MODERN WESTERN EUROPEAN HISTORY I (3)** Assumes the student's familiarity with factual data and concentrates on historiographical problems in early modern European history from the late fifteenth century to 1815. Usually offered every year.
- 29.722 COLLOQUIUM IN MODERN WESTERN EUROPEAN HISTORY II (3)** Assumes the student's familiarity with factual data and concentrates on historiographical problems in European history from 1815 to the present. Usually offered every year.
- 29.723 COLLOQUIUM IN BRITISH HISTORY I (3)** Assumes the student's familiarity with factual data and concentrates on historiographical problems in British history, fifteenth century to 1688. Offered occasionally according to demand and availability of faculty.

* See description under General Curriculum Information in this publication.

29.724 COLLOQUIUM IN BRITISH HISTORY II (3) Assumes the student's familiarity with factual data, and concentrates on historiographical problems in British history 1688 to the present. Offered occasionally according to demand and availability of faculty.

29.725 COLLOQUIUM IN RUSSIAN HISTORY I (3) Study of Russian source material, bibliography, and major historiographical schools from Ancient Russia to the present. Offered occasionally according to demand and availability of faculty.

29.726 COLLOQUIUM IN RUSSIAN HISTORY II (3) Examination of the principal historiographical controversies and issues in Russian history from the Norman conquest to the role of Stalin. Offered occasionally according to demand and availability of faculty.

29.727 COLLOQUIUM IN UNITED STATES HISTORY I: To 1865 (3) Assumes the student's familiarity with factual data, and concentrates on analyzing important historiographical disputes and developments on the central themes of U.S. history to the end of the Civil War. Usually offered every year.

29.728 COLLOQUIUM IN UNITED STATES HISTORY II: Since 1865 (3) Assumes the student's familiarity with factual data, and concentrates on analyzing important historiographical disputes and developments on the central themes of U.S. history from 1865 to the present. Usually offered every year.

RESEARCH SEMINARS

29.751 RESEARCH SEMINAR IN EUROPEAN HISTORY (3) Identification and development of research topics. Sources and their evaluation. Research techniques and problems. Writing and argumentation. All students research and write substantial papers based largely on primary sources. Some Ph.D. candidates use course to develop dissertation proposals. Usually offered every term.

29.752 RESEARCH SEMINAR IN UNITED STATES HISTORY (3) Identification and development of research topics. Sources and their evaluation. Research techniques and problems. Writing and argumentation. All students research and write substantial papers based largely on primary sources. Some Ph.D. candidates use course to develop dissertation proposals. Usually offered every term.

29.799 DOCTORAL DISSERTATION SEMINAR (3-12) Usually offered every term.

Interdepartmental Science

COORDINATOR Matthew F. Norton, Department of Chemistry

FACULTY Faculties of the departments of Biology, Chemistry, Mathematics, Statistics, and Computer Science, Physics, and Psychology, and the School of Education.

Undergraduate Program in Distributed Science

TRACKS Biology, Chemistry, Mathematics, Physics, and Psychology.

ADMISSION TO THE PROGRAM No unique admission requirements.

Required	A minimum of 60 semester hours of courses in combined science or combined mathematics and science fields. The distribution must include at least: (1) 26 semester hours in one area of science or mathematics;
Options	(2) 12 semester hours in a second area of science or mathematics; (3) 8 semester hours in a third area of science or mathematics; (4) 8 semester hours in a fourth area of science or mathematics; and (5) 6 additional semester hours in either (1) or (2).

The following may not be used as credit towards meeting the requirements for this major: 09.120, 15.101, 15.160, 15.161, 41.101, 41.102, 41.105, 41.106, 51.101, 51.203, 51.204, and 51.210.

Related Requirements	41.111 and 41.222. Two courses selected from anthropology, economics, philosophy, 40.280, 40.281, and 57.100.
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Recommendations	Courses should be taken in the sequence specified by each department.
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DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Distributed Science.

Undergraduate Program in Environmental Studies

ADMISSION TO THE PROGRAM Students from both science and nonscience fields may be admitted to the environmental studies second major. Students must be in good standing with the University and be enrolled as a major in a department of The American University. Students must be counseled by a faculty member in the primary major in conjunction with a faculty member on the Environmental Studies Committee.

Set 75.201, 75.202, 75.203, 75.301 and 75.401.

Requirements

Related

Requirements

Seven additional courses chosen from the University curricula at large to form a coherent program relating the student's primary major to environmental studies. Of these seven courses, five must be outside the student's primary major department and primary major degree requirements. Of these, four courses must be 300-level or above.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts or Bachelor of Science with a primary major from another department and a second major in Environmental Studies.

Master's Program in Science Teaching

TRACKS The degree involves course work in science and mathematics as well as in education, with a main concentration in a single science area.

ADMISSION TO THE PROGRAM The degree of M.S.S.T. is administered jointly by the departments of the sciences, the Department of Mathematics, Statistics, and Computer Science, and the School of Education. A student interested in this program should consult the chairman of the Department of Chemistry, the dean of the School of Education, and the chairman of the science or mathematics department in which he plans to concentrate. The chairman of that department will assign an advisor. Students must have completed either the Graduate Record Examination or the Miller Analogies Test. Two letters of recommendation are required.

Course

Requirements

A minimum of 30 semester hours of approved graduate work with at least 6 hours taken in the field of concentration. The student's undergraduate and graduate courses in the area of concentration must total a minimum of 32 semester hours.

Related

Requirements

(1) A minimum of eight semester hours in a second science field. (2) One year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the M.S.S.T. program or as an additional course for no graduate credit along with the courses taken for graduate credit. (3) Six semester hours of graduate courses in education upon consultation with the M.S.S.T. advisor in the School of Education. These courses should be related to one of the comprehensive examinations in education. The comprehensive fields in education may be selected from the following areas: History and Philosophy of Education, Psychology of Education, and Science Education.

A maximum of 12 semester hours of courses from the 300-400-levels may be applied toward the requirements for this degree. These courses may be selected from 09.304, 09.335, 09.340, 09.341, 09.356, 41.310, 41.321, 41.322, 40.340, 40.341, 41.474, 51.330, 51.350, and 51.370.

Advancement to

Candidacy

The student must file for advancement to candidacy upon completion of 12 graduate semester hours.

Examinations

One comprehensive examination in education and one in the area of concentration.

Thesis

Students must complete a nonthesis option as approved by the faculty advisor.

DEGREE OBJECTIVE Students receive a degree of Master of Science in Science Teaching with a major in Science Teaching.

NOTE ALSO See the master's degree programs in the departments of Biology, Chemistry, Mathematics, Statistics, and Computer Science, Physics, and Psychology, and the School of Education.

Doctoral Program in Science Education

TRACKS This is a joint degree program offered between the School of Education and the departments of Biology, Chemistry, and Physics. Specific programs are under joint supervision of the School of Education and the chairman of the Department of Chemistry.

ADMISSION TO THE PROGRAM A master's degree in education or a science from an approved institution and approval of the School of Education, the chairman of the Department of Chemistry, and of the science department of the prospective concentration.

Course Requirements The following education courses prior to or as a part of the program: 21.520, 21.623, 21.790, 21.792, 21.583, 21.584, 21.585, and 6 semester hours of 21.799. Each student must complete appropriate background courses and a minimum of 15 semester hours of core courses in a field of science. Biology core courses are 09.524, 09.531, and 09.730. Chemistry core courses are 15.520, 15.521, 15.600, 15.601, 15.551, 15.560, and 15.561. Earth sciences core courses, administered by the Department of Chemistry, will be determined at the time of initial advisement. Physics core courses are 51.631, 51.651, and 51.670.

Advancement to Candidacy The student is required to file for advancement to candidacy upon completing nine semester hours. Qualification requires a written and/or an oral examination administered by the advisors following completion of prerequisites.

Tools Two tools of research from among: education statistics or statistics, computer science, French, German, Russian, or Spanish.

Examinations 21.022, 21.029, and either two comprehensive examinations in biology or physics or three points on two cumulative examinations in chemistry.

Dissertation A written dissertation must be presented and defended orally; the topic must be one which crosses both the field of education and one of the sciences. The committee will include three full-time faculty members, either one in education and two in the sciences or vice versa.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Science Education.

NOTE ALSO Doctoral degrees in the School of Education, the Department of Chemistry, and the Department of Physics.

Courses of Instruction

Undergraduate Courses

75.201 PERSPECTIVES ON ENVIRONMENTAL CRISES (3) Survey of typical environmental problems facing man. Ecological, technological, and cultural implications of environmental problems are considered. Topics include: energy crisis, oil pollution, economic growth, water pollution, population, and world food supply. Designed to serve as introductory course for environmental studies majors. Nonmajors may take it as an elective. Usually offered every fall.

75.202 ENVIRONMENTAL SCIENCE I (4) Designed to familiarize nonscience majors with the broad physical and biological aspects of our environment. Emphasis placed on the following: common organisms and their ecological relationships; the various sciences and social aspects of environmental disruption; environmental assessment; and field and laboratory experiences. Required of environmental science majors. Usually offered every fall.

75.203 ENVIRONMENTAL SCIENCE II (3) Principles of natural sciences as these relate to sanitation management in urban communities for the protection of human health and welfare and the maintenance of the quality of life as this is defined in the National Environmental Policy Act of 1970.

75.301 ENVIRONMENTAL STUDIES COLLOQUIUM (3) Designed to expose the student to ideas, concepts, and theory with discussion and interaction with prominent leaders in the environmental field. Attendance, outside readings, and reaction papers are required. Usually offered every fall.

75.390 INDEPENDENT READING COURSE IN INTERDISCIPLINARY STUDIES (1-6)*

75.401 ENVIRONMENTAL STUDIES SENIOR RESEARCH PROJECT (3) Students conduct an interdisciplinary environmental research project under the direction of environmental studies major advisor and primary major advisor. Project includes preparation of final report and presentation in seminar. *May be repeated for credit within the same term; topic may be the same. Usually offered every fall.

Jewish Studies

DIRECTOR Gershon Greenberg

FULL-TIME FACULTY

Associate Professor G. Greenberg (Philosophy and Religion)

Assistant Professor E. Joyce (Literature)

The study of Jews and Judaism explores the experiences and consciousness of those who have considered themselves Jewish, from the patriarch Abraham to the present. It reaches into their changing world views, especially as related to the rest of humanity, as expressed in literature, socio-historical events, philosophy and theology. The objective data studied may be applied to both preprofessional internship activity and to subjective identity.

MORRIS GEWIRZ SERIES IN JEWISH THOUGHT Established in 1975 through a grant from the family of the late Morris Gewirz, noted Washington Jewish philanthropist, in memory of his commitment to Jewish education. The series includes a two-semester survey of the development of Jewish thought (61.320 and 61.321) and specialized studies such as philosophy of Jewish history and modern Jewish philosophy.

DR. EVERETT AND MARIAN GORDON STUDIES IN JUDAISM'S INTERFAITH DIMENSIONS

Established in 1976 through a grant from noted Washington orthopedic surgeon Dr. Everett Gordon and his wife Marian. Provision is made for courses and lectures which uncover the common roots of western religion and compare Judaism with Christianity, and Islam.

DR. EVERETT AND MARIAN GORDON SCHOLARSHIP AWARDS IN JEWISH STUDIES Also established in 1976 through a grant from noted Washington orthopedic surgeon Dr. Everett Gordon and his wife Marian. Funding is provided for awards for and printing of outstanding senior theses in Jewish studies and/or scholarships for classroom performance by students concentrating in the field, with preference to students without previous backgrounds in Jewish studies.

Undergraduate Program in Jewish Studies

ADMISSION TO THE PROGRAM No previous background is necessary or implied. For admission, applicants are requested to delineate a course of study, senior thesis area of research, and graduate school and/or career goals.

Set 34.481.

Requirements

Required

Options

(1) Two courses in ancient through mediaeval period from among 61.320, 34.301, 34.305, and 61.150, or equivalents approved by Jewish Studies Program faculty. (2) Two courses in the modern-contemporary period from among 61.321, 34.302, and 34.306, or equivalents approved by Jewish Studies Program faculty. (3) Two courses from among 34.101, 34.491, and 37.328, or other electives approved by Jewish Studies Program faculty.

Related

Requirements

36.128, 36.129, 36.228, and 36.229, or equivalent proficiency in Hebrew as approved by Jewish Studies Program faculty.

Special

Opportunities

(1) As Special Track with a non-Jewish Studies Major: Coordinated with major field of study, e.g., Jewish sociology, Jewish studies and international relations. Requirements include Required Options listed above. (2) Internship: Preprofessional experience providing exposure to

possible Judaica-related careers. (3) Senior Thesis: Preparation for and admission to graduate school and/or professional position.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Jewish Studies.

Courses of Instruction

Undergraduate Courses

34.101 INTRODUCTION TO JEWS AND JUDAISM (3) Introduction to varieties of Jewish experience and thought through the study of Orthodoxy, Reform, Conservative, and mystical Judaism in modern America. Coordination with Washington Hebrew Congregation Sunday Scholar Series. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

34.211 HUMANITY AND JEWISH IDENTITY (3) An endeavor to delineate Jewish identity in the past, come to grips with the present fragile American Jew, and then formulate a new Jewish identity for the future. The following questions are included: How does Judaism compare with Christianity and Islam? How may traditional Jewish ritual be evaluated? What impact do the holocaust, the state of Israel, and modern American Jewish college students have for the Judaism of the future?

34.285 BUILDING A NATION: THE CASE OF ISRAEL (3) Development of the modern state of Israel from concept to reality over the last half century. How and why have Israel's Jewish citizens, who are of widely diverse backgrounds, come to Israel (Palestine) and integrated to develop a nation? How have Israel's Arab citizens dealt with their dilemma of living in a state at war with the nation to which they belong? Guest speakers and embassy visits.

34.301 HEBREW LEGEND, POETRY AND DRAMA (3) Survey of varieties of post-Biblical literature, including Biblical interpretation, legend, legal texts, poetry, and folklore through the Middle Ages. Attention given to literary styles, social context, and patterns of literary development. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

34.302 SHTETL, HOLOCAUST, AMERICA: LITERARY RESPONSES (3) Varieties of Jewish literary expression in the modern period, focusing on the experiences in Eastern Europe, the death-camp, and within American culture. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

34.305 JEWISH HISTORY: BIBLE, BABYLON, AND CHRISTIAN EUROPE (3) Historical survey of the Jewish people from Abraham through Spanish expulsion. Attention to social, political, and economic dimensions of life in ancient Palestine, Temple destruction, communal life in Babylon, medieval European ghettos, and Crusades. May be taken for the social sciences distribution requirement. Usually offered alternate falls.

34.306 MODERN JEWISH HISTORY (3) Historical survey from 1492 to present. Experiences of Jews in Northern Europe, Turkey, North Africa, Poland, France, Germany, Israel, Soviet Union, and America. May be taken for the social sciences distribution requirement. Usually offered alternate springs.

34.390 INDEPENDENT READING COURSE IN JEWISH STUDIES (1-6)*

34.401 SPECIAL STUDIES IN JEWISH LITERATURE (3) Each term one dominant theme or period in the history of Jewish and/or Hebrew literature is studied. Topics include Holocaust Literature, Modern Hebrew Poetry, Jewish Liturgy and Song, Yiddish Literature, and Legends and Folk Tales. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement.

34.405 JEWISH HISTORY OF THE TALMUDIC PERIOD (3) Cultural, social, and economic conditions of communities in Babylon, Palestine, North Africa, and Europe from sixth century B.C. until 1000 A.D. Topics include community structures, relations with Arabs and European Christians, and daily life of average Jew. May be taken for the social sciences distribution requirement. *Prerequisites:* 34.101

34.406 MEDIEVAL JEWISH HISTORY (3) Jewish life from 1000 A.D. until 1750. Impact of Christianity on Judaism, as seen through persecutions, crusades, and economic and social relationships. Development of Jewish communities in Eastern and Western Europe, Africa, and South America. Jewish life styles and self-government. *Prerequisites:* 34.101

* See description under General Curriculum Information in this publication.

34.409 SPECIAL STUDIES IN JEWISH POLITICS AND LAW (3) Topics rotate to include comparative Jewish law, modern Israeli law, and Jewish law in Christian society. May be repeated for credit, but not within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every spring.

34.481 SENIOR SEMINAR IN JEWISH STUDIES (3) Preparation of a major research paper in an area selected by Jewish Studies majors. Class sessions provide instruction in research methods and tools. Results are presented at a public forum at the end of the term. Usually offered every spring.
Prerequisites: All other Jewish Studies Program major requirements.

34.490 INDEPENDENT STUDY PROJECT IN JEWISH STUDIES (1-6)*

34.491 INTERNSHIP IN JEWISH STUDIES (3-6) Introduction to Judaica-related professions through practical experience: political research, philanthropy, journalism, social work, education, librarianship, rabbinate, and synagogue administration. Usually offered every term.

NOTE ALSO Consult the Department of History section of this publication for course 29.201, which may be taken for credit towards a Jewish studies major.

Graduate and Advanced Undergraduate Courses

34.590 INDEPENDENT READING COURSE IN JEWISH STUDIES (1-6)*

NOTE ALSO Consult the School of Government and Public Administration section of this publication for course 53.637, which may be taken for credit towards a Jewish studies major.

Language and Foreign Studies

CHAIRMAN Bruno F. Steinbruckner

FULL-TIME FACULTY

Professor V. Medish, B. F. Steinbruckner

Associate Professor M. Betts, V. Borkovec, E. Burkart, M. Charbonneaux, J. Goldin, G. Huberman, G. Mancill, H. Pineda, O. Salazar, M. Struelens

Assistant Professor E. Oktay, J. Wisman

Instructor H. Shepanek

In an increasingly complex world of cultural awareness, the study of foreign languages, literatures, and cultures is of great importance. Learning about the ways in which other nations live and think furthers and enhances the understanding between peoples and cultures. The Department of Language and Foreign Studies offers a variety of fields of study dealing with foreign languages, cultures, and linguistics: French Studies, German Studies, Russian Studies, Spanish and Latin American Studies, Linguistics; a joint area and language program with the School of International Service, and a joint program with the School of Communication.

Undergraduate Programs in Language and Foreign Studies

MAJORS French, German, Russian, or Spanish Studies.

ADMISSION TO THE PROGRAMS Requires completion of the elementary and intermediate language levels in the appropriate language. Requirements of elementary and intermediate language course work may be waived if high school or other preparation warrants it.

Set Requirements (1) Intensive Elementary and Intermediate I and II; (2) Conversation and Composition I, II, III, IV (if warranted by language proficiency, a portion or all may be replaced with 500-level literature courses); (3) Civilization I and II; (4) Three courses chosen from introductory linguistics courses, topics courses, colloquia, or 500-level literature courses; (5) Internship or approved substitute.

A comprehensive examination is to be taken during the last semester.

Required Options A minimum of 15 semester hours from the following concentrations: (1) major area studies at the 300-level or above, including colloquia and

* See description under General Curriculum Information in this publication.

	literature; (2) a second foreign language; and (3) teacher training. At least three of these courses must be in the department.
Recommendations	Students whose background requires entry into the program at the elementary or intermediate level in the major language should take the appropriate Introduction to Culture and Introduction to Literature courses.
Special Opportunities	Language clubs, <i>Proyecto Amistad</i> (community projects), and Delta Phi Alpha (German National Honorary Society).

DEGREE OBJECTIVES Students receive a degree of Bachelor of Arts with a major in French, German, Russian, or Spanish Studies.

NOTE ALSO The Department of Language and Foreign Studies faculty offers teacher education courses through the School of Education.

Undergraduate Programs in Language and Area Studies

MAJORS The student may choose one of four different programs of study depending on his language and area interest: French or German/Western European Area Studies, Russian/U.S.S.R. Area Studies, and Spanish/Latin American Area Studies.

ADMISSION TO THE PROGRAMS Freshmen and transfers are admitted to the Department of Language and Foreign Studies or the School of International Service. They must achieve a B or better cumulative grade-point average and determine their language and area before they are formally recognized as majors.

Set Requirements	All students are required to take the following in the appropriate language: (1) Intensive Elementary and Intermediate I and II (2) Conversation and Composition I and II or approved substitutes; (3) Civilization I and II.
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Required Options	(1) Eight additional courses relevant to the area of specialization, to be selected by the student, in consultation with his advisor, from among those offered in anthropology, economics, history, international relations, political science, or 500-level literature and interdisciplinary courses and colloquia in the Department of Language and Foreign Studies. The eight must be distributed among two or more of these fields or disciplines, and may not include required prerequisites which are not specific to the area, (2) A total of 15 semester hours must be taken in the Department of Language and Foreign Studies, and a total of 15 semester hours must be taken in the School of International Service, of which a minimum of 6 semester hours must be in the area of specialization (they may be among the eight courses listed above).
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Special Opportunities	Language clubs.
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DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in French/Western European Area Studies, German/Western European Area Studies, Russian/U.S.S.R. Area Studies, or Spanish/Latin American Area Studies.

NOTE ALSO This degree is administered jointly with the School of International Service.

Undergraduate Program in Foreign Language and Communication Media

TRACKS French, German, Russian, or Spanish combined with Broadcast Journalism, Print Journalism, Public Communication, or Visual Media.

ADMISSION TO THE PROGRAM Students are admitted to both the School of Communication and the Department of Language and Foreign Studies.

Set Requirements	17.100, 17.101, and 17.201.
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Required Options	(1) Three communication and media studies courses from the School of Communication; (2) Two of the following: 37.110, 37.120, 37.130, and
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37.140; (3) One of the following: 37.199, 37.200, or 37.300; (4) Five courses in one of the four communication major tracks: Broadcast Journalism, Print Journalism, Public Communication, or Visual Media; and (5) five appropriate language courses in Conversation and Composition I and II, Civilization I and II, topics, or colloquia.

Recommendations

Note that competency at the intermediate level in the major language is necessary prior to fulfilling the degree requirements.

Special

Language clubs.

Opportunities

DEGREE OBJECTIVE Student receives a degree of Bachelor of Arts with a major in Foreign Language and Communication Media. A graduate year leading to a Master of Arts degree in Foreign Language and Communication Media is offered by the Department of Language and Foreign Studies. (See below.)

Graduate and Advanced Undergraduate Certificate in Teaching English as a Foreign Language

ADMISSION TO THE PROGRAM Requires permission of instructor.

Set Requirements 37.500, 37.504, and 37.508. Students must maintain a B (3.00 on a 4.00 scale) grade-point average.

Special

Partial satisfaction of M.A. requirements in department.

Opportunities

DEGREE OBJECTIVE Students receive a Certificate in Teaching English as a Foreign Language.

Master's Programs in Language and Foreign Studies

MAJORS French, German, Russian, or Spanish Studies.

ADMISSION TO THE PROGRAMS Requires proficiency in the appropriate language and culture demonstrated either by a B.A. degree in that field of study or equivalent preparations.

Course

A minimum of 30 semester hours of course work in the appropriate language.

Requirements

Special

Delta Phi Alpha (German National Honorary Society), language clubs.

Opportunities

Advancement to Candidacy

Completion of 12 semester hours with 3.00 or better grade-point average.

Examinations

Comprehensive examination in appropriate language.

THESIS (1) Six semester hours. (1) Thesis option: one 700-level seminar. Oral defense of the thesis before an appointed committee. (2) Nonthesis option: two 700-level seminars for three semester hours each.

DEGREE OBJECTIVE Students receive degree of Master of Arts with a major in French, German, Russian, or Spanish Studies.

Master's Program in Foreign Language and Communication Media

TRACKS French, German, Russian, or Spanish.

ADMISSION TO THE PROGRAM Requires a Bachelor of Arts in Foreign Language and Communication Media or an undergraduate major in communication with a minor in an appropriate foreign language, or an undergraduate major in an appropriate foreign language with a minor in communication. Two letters of recommendation are required if undergraduate degree was not earned in the department.

Course

A minimum of 30 semester hours including 17.503, 17.531, and one additional 500-level course in communication and media studies; four approved 500-level literature courses or colloquia in the appropriate

Requirements

	language in the Department of Language and Foreign Studies; and one independent study project for media.
Special Opportunities	Delta Phi Alpha (German National Honorary Society), language clubs, and programs abroad.
Advancement to Candidacy	Completion of 12 semester hours with a B (3.00 on a 4.00 scale) or better grade-point average.
Examinations	Comprehensive examination in appropriate foreign culture and media (in foreign language).
Thesis	Students must prepare a thesis or take 17.760 and 37.700 as a nonthesis option.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Foreign Language and Communication Media.

Master’s Program in Linguistics

ADMISSION TO THE PROGRAM Proficiency in a modern language must be demonstrated in one of the following ways: (1) successful completion of an individual research project dealing with a linguistic aspect of an approved language; (2) successful completion of a 500-level through 700-level course conducted entirely, or in part, in a foreign language; (3) at least one semester of a teaching fellowship in a foreign language or in English as a foreign language. Waiver of the foreign language requirement may be granted to (a) foreign students, and (b) possessors of a B.A. or its equivalent in the foreign language. Two letters of recommendation are required if undergraduate degree was not earned in the department.

Course Requirements	A minimum of 30 semester hours including (1) 15 hours in general linguistics; (2) one 700-level seminar; (3) either 6 hours in M.A. thesis seminar and oral defense of the thesis (thesis option) or two 700-level seminars and 6 hours in one of the following concentrations: applied linguistics, formal linguistics or teaching English as a foreign language (nonthesis option); (4) electives to complete a minimum of 30 hours.
Advancement to Candidacy	Completion of 12 semester hours with a B (3.00 on a 4.00 scale) or better grade-point average.
Examinations	Comprehensive examination in the appropriate field of the core courses.
Thesis	See course requirements section for an outline of the thesis and nonthesis options.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Linguistics.

Courses of Instruction

Undergraduate Courses

The basic undergraduate level courses offered by the department through its Language institute are listed alphabetically by field of study below.

Courses in the following languages are offered each academic year: French, German, Hebrew, Japanese, Russian, and Spanish.

Courses in the following languages are offered on a rotating basis or by tutorial: Arabic, Chinese, Czech, Danish, Dutch, Greek (Modern), Hindi, Hungarian, Indonesian, Italian, Korean, Latvian, Norwegian, Polish, Portuguese, Serbo-Croatian, Swedish, Thai, Vietnamese, and Yiddish.

DESCRIPTION OF THE LANGUAGE PROGRAM

First Year 100-Level Intensive Elementary Courses Emphasis on mastering structure. Basics of phonology and morphology. Situational approach. Perfection of audiolingual skills. Development of good pronunciation and speech patterns through intensive drilling. Mastery of writing system and its orthographic devices through controlled vocabulary and reading. Memorization techniques developed with audio-visual aids. Five clock hours per week of class instruction supplemented with compulsory group drilling sessions and individual language and laboratory work.

Second Year 200-Level Intensive Intermediate Courses Emphasis on cultural patterns and contrasts between cultures. Refinement of basic language skills. Study of more complex grammatical structures. Introduction of syntax. Expansion of vocabulary within cultural context. Intensive and extensive reading. Controlled writing projects. Transition from manipulation of patterns to development of communicative skills. Appropriate use of audio-visuals. Five clock hours per week of class instruction supplemented with compulsory intensive drilling and individual language laboratory work.

Third Year 300-Level Topics Courses Content lecture course on a selected topic. Taught in foreign language. Designed for both majors and nonmajors. May be taken more than once for credit provided different subject matters are covered. Completion of a specified number of "topics" earns the student a special Use of Language Certificate.

Third Year 300-Level Intensive Conversation and Composition Courses Emphasis on style and style level. Expansion of vocabulary through extensive reading of literary excerpts, current newspapers, magazines, assisted by a frequent use of audio-visual aids. Perfection of oral skills. Review of difficult grammar structures. Imitation of literary styles. Creative use of language. Study of semantic problems, idioms, clichés, and figurative speech. Five clock hours per week of class instruction.

Fourth Year 400-Level Civilization Courses Survey of a foreign civilization. Emphasis on the historical development of literature. Topical lectures. Designed for both majors and nonmajors.

Fourth Year 400-Level Conversation and Composition Courses Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. Creative use of language. Designed especially for majors. Study of semantic problems, idioms, clichés, and figurative speech. Five clock hours of class instruction per week.

ARABIC STUDIES

36.110 ARABIC, ELEMENTARY I (3) Usually offered alternate falls.

36.111 ARABIC, ELEMENTARY II (3) Usually offered alternate springs. *Prerequisite:* 36.110 or equivalent.

36.210 ARABIC, INTERMEDIATE I (3) Usually offered alternate falls. *Prerequisite:* 36.111 or equivalent.

36.211 ARABIC, INTERMEDIATE II (3) Usually offered alternate springs. *Prerequisite:* 36.210 or equivalent.

CHINESE STUDIES

36.112 CHINESE, ELEMENTARY I (3) Usually offered every fall.

36.113 CHINESE, ELEMENTARY II (3) Usually offered every spring. *Prerequisite:* 36.112 or equivalent.

CZECH STUDIES

36.114 CZECH, ELEMENTARY I (3)

36.115 CZECH, ELEMENTARY II (3) *Prerequisite:* 36.114 or equivalent.

FRENCH STUDIES

36.122 FRENCH, INTENSIVE ELEMENTARY I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer.

36.123 FRENCH, INTENSIVE ELEMENTARY II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 36.122 or equivalent.

36.222 FRENCH, INTENSIVE INTERMEDIATE I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer. *Prerequisite:* 36.123 or equivalent.

36.223 FRENCH, INTENSIVE INTERMEDIATE II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 36.222 or equivalent.

37.320 FRENCH TOPICS (3) Content courses taught in French on one of the following topics: Survey of Arts, Political Life, Customs and Manners, The Younger Generation, Architecture, Leisure

and Entertainment, Provinces, The Woman, Rulers and Statesmen, Paris, Its Places and Inhabitants, and France Today and Tomorrow. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term. *Prerequisite*: two years of college French or equivalent.

37.324 FRENCH CONVERSATION AND COMPOSITION I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: two years of college French or equivalent.

37.325 FRENCH CONVERSATION AND COMPOSITION II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: 37.324 or equivalent.

37.380 VOCABULARY ENRICHMENT (1) Supervised independent study with special French language section. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite*: two years of college French or equivalent.

37.420 FRENCH CIVILIZATION I (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall. *Prerequisite*: three years of college French or equivalent.

37.421 FRENCH CIVILIZATION II (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring. *Prerequisite*: three years of college French or equivalent.

37.424 FRENCH CONVERSATION AND COMPOSITION III (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: three years of college French or equivalent.

37.425 FRENCH CONVERSATION AND COMPOSITION IV (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: 37.424 or equivalent.

37.491 PRACTICUM (3) Supervised work-study program with a special French language section. Usually offered every term. *Prerequisite*: three years of college French or equivalent.

FOREIGN CULTURE (in English)

37.110 INTRODUCTION TO FRENCH CULTURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: no language prerequisite.

37.112 INTRODUCTION TO FRENCH LITERATURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: no language prerequisite.

37.120 INTRODUCTION TO GERMAN CULTURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: no language prerequisite.

37.122 INTRODUCTION TO GERMAN LITERATURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: no language prerequisite.

37.130 INTRODUCTION TO RUSSIAN CULTURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: no language prerequisite.

37.132 INTRODUCTION TO RUSSIAN LITERATURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: no language prerequisite.

37.140 INTRODUCTION TO SPANISH AND LATIN AMERICAN CULTURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite*: no language prerequisite.

37.142 INTRODUCTION TO SPANISH AND LATIN AMERICAN LITERATURE (3) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite*: no language prerequisite.

GERMAN STUDIES

36.124 GERMAN, INTENSIVE ELEMENTARY I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer.

36.125 GERMAN, INTENSIVE ELEMENTARY II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite*: 36.124 or equivalent.

36.224 GERMAN, INTENSIVE INTERMEDIATE I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall.

36.225 GERMAN, INTENSIVE INTERMEDIATE II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 36.224 or equivalent.

37.330 GERMAN TOPICS (3) Content course taught in German on following topics: Customs and Manners, Lands and Regions, East and West, and Survey of Arts. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. *Prerequisite:* two years of college German or equivalent.

37.334 GERMAN CONVERSATION AND COMPOSITION I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* two years of college German or equivalent.

37.335 GERMAN CONVERSATION AND COMPOSITION II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 37.334 or equivalent.

37.380 VOCABULARY ENRICHMENT (1) Supervised independent study with special German language section. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* two years of college German or equivalent.

37.430 GERMAN CIVILIZATION I (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* three years college German or equivalent.

37.431 GERMAN CIVILIZATION II (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* three years college German or equivalent.

37.434 GERMAN CONVERSATION AND COMPOSITION III (6) May be taken for the arts and humanities distribution requirement. *Prerequisite:* 37.335 or equivalent.

37.435 GERMAN CONVERSATION AND COMPOSITION IV (6) May be taken for the arts and humanities distribution requirement. *Prerequisite:* 37.434 or equivalent.

37.491 PRACTICUM (3) Special German language work-study program section. Usually offered every term. *Prerequisite:* three years of college German or equivalent.

GREEK STUDIES

36.126 GREEK, ELEMENTARY I (3)

36.127 GREEK, ELEMENTARY II (3) *Prerequisite:* 36.126 or equivalent.

HEBREW STUDIES

36.128 HEBREW, ELEMENTARY MODERN I (3) Usually offered every fall.

36.129 HEBREW, ELEMENTARY MODERN II (3) Usually offered every spring. *Prerequisite:* 36.128 or equivalent.

36.228 HEBREW, INTERMEDIATE MODERN I (3) Usually offered every fall. *Prerequisite:* 36.129 or equivalent.

36.229 HEBREW, INTERMEDIATE MODERN II (3) Usually offered every spring. *Prerequisite:* 36.228 or equivalent.

37.328 HEBREW TOPICS (3) Usually offered every fall. *Prerequisite:* two years college Hebrew

HINDI STUDIES

36.130 HINDI, ELEMENTARY I (3) Usually offered every fall.

36.131 HINDI, ELEMENTARY II (3) Usually offered every spring. *Prerequisite:* 36.130 or equivalent

36.230 HINDI, INTERMEDIATE I (3)

36.231 HINDI, INTERMEDIATE II (3)

HUNGARIAN STUDIES

36.132 HUNGARIAN, ELEMENTARY I (3)

36.133 HUNGARIAN, ELEMENTARY II (3) *Prerequisite:* 36.132 or equivalent.

INDONESIAN STUDIES

36.134 INDONESIAN, ELEMENTARY I (3)

36.135 INDONESIAN, ELEMENTARY II (3) *Prerequisite:* 36.134 or equivalent.

JAPANESE STUDIES

36.136 JAPANESE, ELEMENTARY I (3) Usually offered every fall.

36.137 JAPANESE, ELEMENTARY II (3) Usually offered every spring. *Prerequisite:* 36.136 or equivalent.

36.236 JAPANESE, INTERMEDIATE I (3) Usually offered every fall. *Prerequisite:* 36.137 or equivalent.

36.237 JAPANESE, INTERMEDIATE II (3) Usually offered every spring. *Prerequisite:* 36.236 or equivalent.

37.336 JAPANESE CONVERSATION AND COMPOSITION II (3) *Prerequisite:* two years of college Japanese.

37.337 JAPANESE CONVERSATION AND COMPOSITION II (3) *Prerequisite:* 37.336 or equivalent.

LATVIAN STUDIES

36.138 LATVIAN, ELEMENTARY I (3)

36.139 LATVIAN, ELEMENTARY II (3) *Prerequisite:* 36.138 or equivalent.

LINGUISTICS (In English)

37.198 LANGUAGE AND ETHNICITY (3) An introduction to socio-linguistics. How different groups deal with language, with emphasis on different dialects in the U.S.: ethnic groups, different social, economic, and intellectual levels. Also study of the differences in race—the traditional assumptions about the nature of such differences and its consequences on educability. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered alternate springs.

37.199 INTERNATIONAL VOCABULARY (3) Designed especially for students interested, avocationally and vocationally, in phenomenon of international vocabulary. Pronunciation, transliteration, and contextual meaning of foreign words. Foreign names and terms. May be taken for the arts and humanities distribution requirement. Usually offered every term. *Prerequisite:* no language prerequisite.

37.200 LANGUAGE AND MIND (3) Relationship between language and the mind. Theories of language origins and language acquisition. How language helps one to think more clearly and effectively. Uses of language. Speech defects and their importance in self-concept of the individual. Usually offered every term.

37.300 INTRODUCTION TO LANGUAGE (3) Nature of language. Field of linguistics. Languages of the world. Linguistic terminology. Relation of linguistics to other disciplines. May be taken for the arts and humanities distribution requirement. *Prerequisite:* no language prerequisite.

POLISH STUDIES

36.140 POLISH, ELEMENTARY I (3)

36.141 POLISH, ELEMENTARY II (3) *Prerequisite:* 36.140 or equivalent.

36.240 POLISH, INTERMEDIATE I (3) *Prerequisite:* 36.141 or equivalent.

36.241 POLISH, INTERMEDIATE II (3) *Prerequisite:* 36.240 or equivalent.

RUSSIAN STUDIES

36.142 RUSSIAN, INTENSIVE ELEMENTARY I (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer.

36.143 RUSSIAN, INTENSIVE ELEMENTARY II (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 36.142 or equivalent.

- 36.242 RUSSIAN, INTENSIVE INTERMEDIATE I (6)** May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* 36.143 or equivalent.
- 36.243 RUSSIAN, INTENSIVE INTERMEDIATE II (6)** May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 36.242 or equivalent.
- 37.340 RUSSIAN TOPICS (3)** Content courses taught in Russian on the following topics: Map of the U.S.S.R., Political System, and The Press. May be repeated for credit within the same term; topic must be different. *Prerequisite:* two years of college Russian or equivalent.
- 37.344 RUSSIAN CONVERSATION AND COMPOSITION I (6)** May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* two years of college Russian or equivalent.
- 37.345 RUSSIAN CONVERSATION AND COMPOSITION II (6)** May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 37.344 or equivalent.
- 37.380 VOCABULARY ENRICHMENT (1)** Supervised independent study with special Russian language section. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* two years of college Russian or equivalent.
- 37.440 RUSSIAN CIVILIZATION I (3)** May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* three years of college Russian or equivalent.
- 37.441 RUSSIAN CIVILIZATION II (3)** May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* three years of college Russian or equivalent.
- 37.444 RUSSIAN CONVERSATION AND COMPOSITION III (6)** May be taken for the arts and humanities distribution requirement. *Prerequisite:* three years of college Russian or equivalent.
- 37.445 RUSSIAN CONVERSATION AND COMPOSITION IV (6)** May be taken for the arts and humanities distribution requirement. *Prerequisite:* 37.444 or equivalent.
- 37.491 PRACTICUM (3)** Special Russian language internship section. Usually offered every term. *Prerequisite:* three years of college Russian or equivalent.

SPANISH STUDIES

- 36.152 SPANISH, INTENSIVE ELEMENTARY I (6)** May be taken for the arts and humanities distribution requirement. Usually offered every fall.
- 36.153 SPANISH, INTENSIVE ELEMENTARY II (6)** May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 36.152 or equivalent.
- 36.252 SPANISH, INTENSIVE INTERMEDIATE I (6)** May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer. *Prerequisite:* 36.153 or equivalent.
- 36.253 SPANISH, INTENSIVE INTERMEDIATE II (6)** May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 36.252 or equivalent.
- 37.350 SPANISH TOPICS (3)** Content course taught in Spanish on the following topics: Regions of Spain, Social Scene in Latin America, Customs and Manners (Spain), Regionalism (Latin America), Survey of Latin American Arts, and Mexico's Culture. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term. *Prerequisite:* two years of college Spanish or equivalent.
- 37.354 SPANISH CONVERSATION AND COMPOSITION I (6)** May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* two years of college Spanish or equivalent.
- 37.355 SPANISH CONVERSATION AND COMPOSITION II (6)** May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 37.354 or equivalent.
- 37.380 VOCABULARY ENRICHMENT (1)** Supervised independent study with special Spanish language section. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* two years of college Spanish or equivalent.

37.450 SPANISH (HISPANIC) CIVILIZATION I (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* three years college Spanish or equivalent.

37.451 SPANISH (HISPANIC) CIVILIZATION II (3) May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* three years of college Spanish or equivalent.

37.454 SPANISH CONVERSATION AND COMPOSITION III (6) May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* 37.355 or equivalent.

37.455 SPANISH CONVERSATION AND COMPOSITION IV (6) May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 37.454 or equivalent.

37.491 PRACTICUM (1–6) Special Spanish language section—Proyecto Amistad: a community-oriented work-study program offering a wide variety of experiences in teaching, social services, etc. Usually offered every term. *Prerequisite:* permission of instructor.

THAI STUDIES

36.194 THAI, ELEMENTARY I (3)

36.195 THAI, ELEMENTARY II (3) *Prerequisite:* 36.194 or equivalent.

INDEPENDENT STUDY

36.390 INDEPENDENT READING COURSE IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1–6)*

36.490 INDEPENDENT STUDY PROJECT IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1–6)*

37.390 INDEPENDENT READING COURSE IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1–6)*

37.490 INDEPENDENT STUDY PROJECT IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1–6)*

37.398 DEPARTMENT HONORS, JUNIOR YEAR (1–6)

37.399 DEPARTMENT HONORS, JUNIOR YEAR (1–6)

37.498 DEPARTMENT HONORS, SENIOR YEAR (1–6)

37.499 DEPARTMENT HONORS, SENIOR YEAR (1–6)

NOTE ALSO Consult the School of Education section of this publication for the following courses that may be taken for credit towards a language major: 21.340 and 21.445.

Graduate and Advanced Undergraduate Courses

LINGUISTICS (In English)

37.500 PRINCIPLES OF LINGUISTICS I (3) Introduction to scientific study of language, with emphasis on structural linguistics. Usually offered every term. *Prerequisite:* permission of instructor.

37.501 PRINCIPLES OF LINGUISTICS II (3) Introduction to study of language change, classification of languages, and linguistic reconstruction. Readings, problems, and class discussions. Usually offered every spring. *Prerequisite:* 37.500.

37.502 LINGUISTIC STRUCTURE I: PHONETICS AND PHONEMICS (3) Techniques of describing speech sounds in terms of articulatory movements and formulas. Practice in hearing and transcribing phonetic sounds, using tape recordings. Basic premises underlying phonemic analysis and practical procedures for arriving at phonemes of a language. Usually offered every term. *Prerequisite:* 37.500, which may be taken concurrently.

37.503 LINGUISTIC STRUCTURE II: MORPHOLOGY AND SYNTAX (3) Problems in analysis and description of morphological data. Introduction to transformational generative grammar. Usually offered every spring. *Prerequisite:* 37.502.

37.504 STRUCTURE OF MODERN AMERICAN ENGLISH (3) Systematic examination of English phonology and grammar as well as regional and social aspects of American English. Usually offered every term. *Prerequisite:* 37.500 or permission of instructor.

37.505 HISTORY OF LINGUISTICS (3) Linguistic theories from the Greeks to modern times. Great linguists and their schools of thought. Development of American linguistics. Usually offered every spring.

37.507 APPLIED LINGUISTICS: METHODOLOGY OF FOREIGN LANGUAGE TEACHING (3) Comparison of various methods of language teaching. Principles underlying structural method of language teaching. Application of linguistics in preparation of teaching materials. Audio-visual aids. Usually offered every spring.

37.508 TEACHING ENGLISH AS A FOREIGN LANGUAGE (3) Methods of teaching English as a foreign language: development of teaching materials; discussion of textbooks, lesson planning, and problems of foreign student. Portion devoted to practical work; writing materials and presenting them orally for class critique. Usually offered every term. *Prerequisites:* 37.500 and 37.504.

37.509 THEORY AND CONSTRUCTION OF GRAMMARS (3) Emphasis is on construction of grammars as defining devices to characterize languages. Automata equivalent to various types of grammars are considered, as well as mathematical relations among grammars. Types of languages considered are mathematical, logical, computational, and two-dimensional, in addition to natural language. *Prerequisite:* 37.503 which may be taken concurrently.

37.510 WORKSHOP IN FOREIGN LANGUAGE TEACHING (1-3) Workshop dealing with practical problems of foreign language teaching. Designed especially for prospective language teachers and teaching assistants. Usually offered every fall.

FRENCH STUDIES (In French)

37.520 FRENCH STRUCTURE (3) Contemporary and historical analysis of phonology, morphology, and syntax of French.

37.521 HISTORY OF THE FRENCH LANGUAGE (3) Study of French language through various stages of its development.

37.522 FRENCH STYLISTICS (3) Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.523 FRENCH ROMANTICISM (3) Development of the Romantic movement in early nineteenth century French literature. Analysis of sentiments of romanticists.

37.524 FRENCH REALISM (3) Nineteenth century French literature from decline of romanticism to turn of century. Periods of expression known as realism, naturalism, and symbolism.

37.525 CONTEMPORARY FRENCH LITERATURE (3) Course content changes each semester; emphasis on genre, movement, or major writers. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.526 THE FRENCH RENAISSANCE (3) Renaissance and humanistic movement in France in sixteenth century. Rabelais, Pleiade, Ronsard, and Montaigne. Usually offered every fall.

37.527 EIGHTEENTH CENTURY FRANCE: MEN AND IDEAS (3) Attitudes and ideas of age of enlightenment as reflected in Montesquieu, Diderot, Encyclopedists, Voltaire, and Rousseau. Usually offered every spring.

37.529 COLLOQUIUM ON FRANCE (3) Lectures, reports, and critical discussions on selected topics pertaining to France's current role in international politics; cultural trends; economic problems. In French. May be repeated for credit within the same term; topic must be different. Usually offered every term.

GERMAN STUDIES (In German)

37.530 GERMAN STRUCTURE AND PROBLEMS IN TEACHING GERMAN (3) Problems in a descriptive analysis of German structure, and impact of new linguistic findings on practice of teaching German.

37.531 HISTORY OF THE GERMAN LANGUAGE (3) Historic development of German language. Scholarly methods applied in diachronic linguistics.

37.532 GERMAN STYLISTICS (3) Style in general and German style features in particular. To familiarize student in theory with what constitutes style levels in nonartistic usage and also to make him recognize elements of style in literary works of art.

37.533 TOPICS, MOTIFS, AND CONVENTION IN GERMAN LITERATURE (3) Understanding and application of modern theoretical aspects reflecting present day thinking in German literary criticism.

37.534 COLLOQUIUM ON GERMANY (3) Lectures, reports, and critical discussions on selected topics pertaining to Germany's current role in international politics, cultural trends, economic problems. In German. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.535 GERMAN LITERATURE IN THE MIDDLE AGES (3) Medieval literature in Germany from approximately 900 to 1400 A.D. Covers period vital to the understanding of German intellectual development. Usually offered every fall.

37.536 GERMAN LITERATURE OF THE SEVENTEENTH AND EIGHTEENTH CENTURIES (3) Content alternates between the Barock period and Lessing and his time. Course may be taken for credit twice.

37.537 CLASSICAL PERIOD IN GERMAN LITERATURE (3) Content alternates between Goethe and his time and Schiller and his time. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.538 NINETEENTH CENTURY GERMAN LITERATURE (3) From romanticism to realism and subsequent developments to beginning of World War I. Selected representatives such as Heine, Keller, Storm, Stifter, Fontane, and the naturalists.

37.539 CONTEMPORARY GERMAN LITERATURE (3) Content changes each semester; emphasis on the novel, drama, or poetry. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

RUSSIAN STUDIES (In Russian)

37.540 RUSSIAN STRUCTURE (3) Contemporary and historical analysis of phonology, morphology, and syntax of Russian.

37.541 HISTORY OF THE RUSSIAN LANGUAGE (3) Russian language through various stages of its development.

37.542 RUSSIAN STYLISTICS (3) Word choice and word groupings, Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.543 RUSSIAN CLASSICS (3) Content changes each semester; emphasis on life and works of major writers. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.544 SOVIET LITERATURE (3) Content changes each semester; emphasis on one major genre or period of Soviet literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.545 RUSSIAN DRAMA (3) Content changes each semester; emphasis on a major period or works of one outstanding Russian playwright. May be repeated for credit, but not within the same term; topic must be different.

37.546 RUSSIAN POETRY (3) Content changes each semester; emphasis on a major period or works of one outstanding Russian poet. May be repeated for credit, but not within the same term; topic must be different.

37.549 COLLOQUIUM ON SOVIET UNION (3) Lectures, reports, and critical discussions on Soviet political system; Russia and USSR. Continuity and change. Communist semantics as propaganda means; cultural scene. In Russian. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

SPANISH (LATIN AMERICAN) STUDIES (In Spanish)

37.550 SPANISH STRUCTURE (3) Contemporary and historical analysis of phonology, morphology, and syntax of Spanish.

37.551 HISTORY OF THE SPANISH LANGUAGE (3) Spanish language through various stages of its development in Europe and America.

37.552 SPANISH STYLISTICS (3) Word choice and word groupings. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.553 SPANISH CLASSICS (3) Content changes each semester; emphasis on period of Spanish literature from medieval epic to generation of 1898. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall.

37.554 CLASSICS OF LATIN AMERICAN LITERATURE (3) Content changes each semester; emphasis on period of Spanish-American literature from colonial era to present time. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

37.555 SPANISH LITERATURE AFTER THE CIVIL WAR (3) Content changes each semester; emphasis on major contemporary writer. May be repeated for credit, but not within the same term; topic must be different.

37.556 TWENTIETH CENTURY LATIN AMERICAN NOVEL (3) Content changes each semester; emphasis on major contemporary novelist. May be repeated for credit, but not within the same term; topic must be different.

37.559 COLLOQUIUM ON LATIN AMERICA (3) Lectures, reports, and critical discussions on peoples and governments of Latin America; cultural trends, political, and economic problems; international relations. In Spanish. May be repeated for credit within the same term; topic must be different. Usually offered every term.

GENERAL STUDIES

37.519 VISITING SCHOLAR'S SEMINAR (3) Seminar with flexible content pertaining to one or more selected topics in foreign literatures, cultures, and linguistics. May be repeated for credit, but not within the same term; topic must be different.

36.590 INDEPENDENT READING COURSE IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1-6)*

37.590 INDEPENDENT READING COURSE IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1-6)*

Graduate Courses

LINGUISTICS (In English)

37.600 LINGUISTIC STRUCTURE III: THEORIES OF SYNTAX (3) Introduction to and comparison of various models on syntactic analysis. *Prerequisite:* 37.503.

37.605 SEMANTICS (3) History of semantic theory. Semantic changes, reflecting cultural change. Ambiguity of meaning. Metaphors. Synonymy. Etymologies. World-field theory. Structural semantics versus historical semantics.

37.710 SEMINAR IN LINGUISTICS (3) Reports and critical discussion on various theoretical and practical problems in scientific study of language, methodology in linguistic research, and other pertinent linguistic subjects. Different content fall and spring. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* permission of instructor.

FRENCH STUDIES (In French)

37.702 SEMINAR IN FRENCH STUDIES (3) Reports and critical discussion of research papers on French literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

GERMAN STUDIES (In German)

37.703 SEMINAR IN GERMAN STUDIES (3) Reports and critical discussion of research papers of German literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

RUSSIAN STUDIES (In Russian)

37.704 SEMINAR IN RUSSIAN STUDIES (3) Reports and critical discussion of research papers on Russian literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

* See description under General Curriculum Information in this publication.

SPANISH STUDIES (In Spanish)

37.705 SEMINAR IN SPANISH AND LATIN AMERICAN STUDIES (3) Reports and critical discussion of research papers on Spanish and Latin American literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

GENERAL STUDIES

36.690 INDEPENDENT STUDY PROJECT IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (1-6)*

37.690 INDEPENDENT STUDY PROJECT IN LANGUAGE, FOREIGN STUDIES, AND LINGUISTICS (1-6)*

37.797 MASTER'S THESIS SEMINAR (1-6) May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

Literature

CHAIRMAN Rudolph von Abele

FULL-TIME FACULTY

Professor R. von Abele, C. M. Clark, D. Grumbach, P. Han, F. Kelly (Emeritus), E. L. Kessler, F. King (Emeritus), C. R. Larson, M. Patton (Emeritus), J. A. Roberts, H. S. Taylor, F. Turaj, L. Young (Emeritus)

Associate Professor C. B. Chabot, J. J. Jorgens, A. Lustig, R. Rubenstein, W. E. Stahr, S. Yarnall, F. Zaparka

Assistant Professor A. P. Bean, L. Behrens, T. F. Cannon Jr., J. E. Lewin, K. W. Moyer, J. Radner

The Department of Literature is concerned with both literature and literacy. In the broadest sense, literature is both part of a cultural tradition and a continuing way of comprehending experience, and so is central to every student's education. The province of literature is reflected in the department's offerings, which embrace a number of approaches, at the introductory, advanced, and graduate levels, to the rich resources of written and oral tradition, as well as courses which challenge the student to engage in creative expression. The department's goal is to enlarge and enrich the individual's understanding and experience through the engagement of the critical and creative intelligence, the emotions, and the imagination.

The department also offers, in cooperation with the School of Communication, a rigorous interdisciplinary curriculum in cinema studies, including film criticism, theory, and history. The program supplements its screenings of 80-90 feature films each semester with classroom analysis and access to reference works, filmmaking equipment, and other film resources.

Undergraduate Program in Literature

TRACKS Literature and Cinema Studies.

ADMISSION TO THE PROGRAM Formal admission to the major requires a 2.00 grade-point average and the approval of the department.

Set	(1) <i>Literature</i> : 23.140
Requirements	(2) <i>Cinema Studies</i> : 23.140, 23.260, 23.362, 23.363, 23.364, 17.511, 17.588, and 17.559.
Required Options	(1) <i>Literature</i> : (a) Three courses from the following surveys of literature: 23.210, 23.211, 23.220, 23.221, 23.230, 23.231, and 23.240—of which one must be 23.210, 23.220, or 23.230. (b) Eight courses in 23.300-23.396 level courses (topics courses in literature), including one in literature written before 1700 (other than Shakespeare) and one in literature written between 1700 and 1900. (c) Four courses offered by the department, which may include two courses in the General Education Program.

* See description under General Curriculum Information in this publication.

(2) *Cinema Studies*: (a) 23.373 or 23.361. (b) 17.334 or 17.554 or 17.555. (c) Three courses in 23.300–23.396 level literature courses (with permission of instructor, one of these may be an advanced course in literature of a foreign language). (d) One course in either performing arts or photography.

Special
Opportunities

Reading lists, independent study and research, and honors courses.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Literature.

NOTE ALSO Performing arts courses which may be taken for credit toward a literature major: 67.101, 67.170, and 67.394.

Master's Program in Literature

TRACKS Literature or Creative Writing.

ADMISSION TO THE PROGRAM Applicants for admission should have at least a 3.00 grade-point average (on a 4.00 scale) in undergraduate literature courses. The Graduate Record Aptitude Examination is recommended. An undergraduate major in literature is desirable, but applications from candidates who have majored in other fields will also be considered, provided that substantial study of literature has been done. Two letters of recommendation are required. Part-time as well as full-time students are welcome in the program.

Course
Requirements

(1) At least two graduate seminars (23.725, 23.726). With the permission of the instructor, qualified M.A. students may be admitted to seminars offered in the Ph.D. program. In addition, graduate seminar credit will be given for participation in Folger Institute seminars.

(2) 18 additional hours of graduate seminars, advanced literature courses (23.600 through 23.696), independent reading courses or study projects, or independent study work coordinated with enrollment in "short courses" in the Ph.D. program. With permission of the departmental advisor, a student may take up to 6 graduate semester hours outside the Department of Literature.

(3) Six additional semester hours in thesis preparation (see thesis requirement).

Advancement to
Candidacy

(1) *Literature Track*: None. (2) *Creative Writing Track*: Completion of six semester hours of graduate course work; submission and departmental approval of writing sample (through the Creative Writing Committee).

Examinations

Two written comprehensive examinations, normally taken in the final semester of study. The first part consists of general questions in the field. The second part consists of a question prepared by the candidate in close consultation with his or her advisor and approved by the Graduate Studies Committee.

Thesis

(1) *Thesis Option*: A two-semester project involving independent research under faculty direction (three semester hours) and thesis writing (three semester hours, 23.797).

(2) *Nonthesis Option*: Six additional semester hours of course work and a 15–20 page critical essay involving both research and independent thought. The essay may represent a careful revision of a paper prepared in the normal course of M.A. degree study.

(3) *Creative Writing Track*: 23.640 or 23.641 or 23.642, and three semester hours of 23.797, during which a substantial piece of creative writing is prepared in lieu of a critical thesis.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Literature.

Doctoral Program in Literary Studies

ADMISSION TO THE PROGRAM The Graduate Record Examination is recommended. At least two

letters of recommendation are required. Samples of previous academic work in literary study (M.A. theses, term papers, etc.) are highly desirable. Whenever possible, an interview with the Director of Doctoral Studies should be arranged.

Course Requirements	A minimum of 72 semester hours including six seminars in literary theory, metacriticism, critical methodology, etc., to total 18 semester hours. (The seminar structure is currently being revised.)
Special Opportunities	Flexible curriculum enabling candidates to design their own program structure; individual tutorial guidance; four semesters of teaching, including opportunity to teach a course of the candidate's own invention; opportunity for genuinely interdisciplinary study; a variety of short courses, six per year, in subjects of interest to both candidates and faculty.
Advancement to Candidacy	Automatic at the time of admission to the program, but subject to yearly review.
Examinations	Three oral examinations on the candidate's project paper proposals; three oral examinations on the candidate's project papers (see Dissertation).
Dissertation	The third of three yearly project papers counts as the equivalent of the conventional dissertation. This paper must be approved by an examining committee.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Literary Studies.

NOTE ALSO Advanced courses in other disciplines may be taken for graduate credit as part of the student's interdisciplinary program (with approval of both departments). Opportunities for Consortium study and use of academic resources in Washington (Library of Congress, the Folger seminars, etc.).

Courses of Instruction

Undergraduate Courses

English for International Students See course offerings under English Language Institute.

BEGINNING LEVEL COURSES

23.100 COMPOSITION AND READING I (3) Training and practice in writing and critical reading. Concepts of language and rhetoric as the basis for effective expression in English. Includes techniques of library research, organization, and writing of a documented research paper. Usually offered every term.

23.101 COMPOSITION AND READING II (3) Critical reading with related writing assignments. Usually offered every term. *Prerequisite:* 23.100 or its equivalent is recommended for background.

23.102, 23.103 COMPOSITION AND READING I, II (3), (3) 23.102 and 23.103 are essentially the same as 23.100 and 23.101. The same amount of semester hour credit is awarded upon completion. They are designed, however, for students who need special help in learning to write. The students attend a workshop session each week in which the teacher provides extra instruction in the specific areas in which individual students are having difficulties. Usually offered every term.

23.104 FRESHMAN SEMINARS IN LITERATURE AND OTHER DISCIPLINES (3) An alternative to Composition and Reading courses listed above, emphasizing interdisciplinary topics. Students may wish to consider the seminar as a means of fulfilling the University Composition and Reading requirement. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

23.130 HONORS ENGLISH I (3) Limited to first-year students, by invitation. Usually offered every fall.

23.131 HONORS ENGLISH II (3) Limited to first-year students, by invitation. Usually offered every spring.

23.140 CRITICAL READING (3) Concentration on means by which literary artists contemplate and comprehend human experience, artistic techniques which shape and achieve form. Required of all

literature majors. May be taken for the arts and humanities distribution requirement. Usually offered every term.

BASIC UNDERGRADUATE COURSES

23.200 ADVANCED WRITING WORKSHOP (3) Writing seminar concentrating on expository prose. Usually offered every term. *Prerequisites:* 23.100 and 23.101 or equivalent. Usually offered every term.

23.201 INTRODUCTION TO CREATIVE WRITING (3) Creative writing for beginning students who want to write poetry, fiction, drama, reportage, and autobiography with specific assignments in each category. With departmental permission, course may be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisites:* 23.100 or 23.101 or equivalent.

23.202 INTRODUCTION TO THE CREATIVE PROCESS IN LITERATURE (3) Students become involved with three distinct varieties of literary experience—criticism, creative writing, and oral performance—in order to facilitate the development of a rich, integrated encounter between reader and literary work, and to develop an understanding of the processes involved in the completion of such a work. May be taken for the arts and humanities distribution requirement.

23.210 MAJOR AMERICAN WRITERS I: AN INTRODUCTORY SURVEY (3) A study of the American writers who exercised a formative, and indeed a continuing, influence on American letters and intellectual life. An appraisal of their roles in the history of literature and thought and an esthetic evaluation of their works. The colonial, national, and romantic periods. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

23.211 MAJOR AMERICAN WRITERS II: AN INTRODUCTORY SURVEY (3) A study of the American writers who exercised a formative, and indeed a continuing, influence on American letters and intellectual life. An appraisal of their roles in the history of literature and thought and an esthetic evaluation of their work. The realist, naturalist, modern, and contemporary periods. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

23.220 MAJOR BRITISH WRITERS I: AN INTRODUCTORY SURVEY (3) Study of the principal writers of the British tradition: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, and Boswell. Each writer is examined as a representative voice of his age and as an individual artist. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

23.221 MAJOR BRITISH WRITERS II: AN INTRODUCTORY SURVEY (3) Study of the principal writers in the British tradition: Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, and Eliot. Each writer is examined as a representative voice of his age and as an individual artist. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

23.230 MAJOR EUROPEAN WRITERS: AN INTRODUCTORY SURVEY (3) A study of selected continental writers from the Greeks to modern times. The method is chronological, with attention given to the emergence and development of major literary forms. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

23.240 MAJOR WORLD WRITERS: NON-EUROPEAN (SURVEY) (3) A survey of non-Western literary works. Although the emphasis is upon the contemporary period, a number of earlier works are also included. Readings include fiction, poetry, and drama from Africa, Asia, and Latin America with some supplementary material from Australia and Oceania. The course is designed to introduce students to non-Western writers whose works are not generally included in courses which emphasize European and American writers. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

23.260 CRITICAL APPROACH TO THE CINEMA (3) An introduction to understanding movies. Critical and theoretical perspectives on the many forms of film art: nonfiction, animation, popular genres, and independent films, etc. The relations of film to the other arts. Includes screenings, readings, analysis, and an opportunity to make a Super 8 film. May be taken for the arts and humanities distribution requirement. Usually offered every term.

GENERAL UNDERGRADUATE COURSES

23.300 HISTORY OF THE ENGLISH LANGUAGE (3) Development of the language from Old English to

Modern English, with special studies on phonology, morphology, semantics, and vocabulary. Meets jointly with 23.600.

STUDIES OF LITERATURE IN A HISTORIC/NATIONAL CONTEXT

23.301 CELTIC MYTH AND LITERATURE (3) Shows the vital importance of literature in all aspects of early Indo-European society—religion, magic, government, law, education, etc.—by examining the powers of the poet among the medieval Irish and Welsh. Course material includes readings in history, archaeology, social structure, art, and myth, as well as major sagas and poems of Ireland and Wales. Meets jointly with 23.601.

23.302 MEDIEVAL LITERATURE (3) The beginnings of literature in Western Europe. A study of that literature as the definition, celebration, and examination of the aesthetic and ethical values of medieval culture. Medieval epic, drama, lyric, and romance in translation. Meets jointly with 23.602.

23.303 SEVENTEENTH CENTURY BRITISH LITERATURE (3) A study of British literature in the framework of the political, religious, and intellectual climate of seventeenth century England. The investigation includes the form and style of representative drama, poetry, and prose of the age. Meets jointly with 23.603.

23.304 EIGHTEENTH CENTURY ENGLISH LITERATURE (3) Outstanding authors and dominant literary forms in the neo-Classical tradition. Focus on Dryden, Swift, Fielding, and Johnson. Meets jointly with 23.604.

23.305 ROMANTIC BRITISH LITERATURE (3) Elements of Romanticism, with close attention to individual literary artists. Meets jointly with 23.605.

23.306 VICTORIAN AND EDWARDIAN LITERATURE (3) Poetry, fiction, and non-fiction prose (1830–1915) reflecting a time of intellectual, social, and religious turmoil and transition. The major writers were confronting crises of belief and value that affected them and their whole society. Their work is a response to these crises. Meets jointly with 23.606.

23.307 MODERN BRITISH LITERATURE (3) Selected literature by twentieth century British writers. The course considers both the changing ideas and changing form of modern literature in Britain. Matters of technique, style, and form, as well as thematic considerations are discussed. Readings include Joyce, Lawrence, Forster, Woolf, Huxley, Murdoch, Golding, Fowles, and others, as well as selected poets and essayists. Meets jointly with 23.607.

23.308 THE IRISH RENAISSANCE (3) Yeats, Joyce, Synge, O'Casey, Frank O'Connor, Liam O'Flaherty, and other major writers of the modern Anglo-Irish literary tradition. Some attention is paid to the recent history of Ireland, and to the relationship between literary and political nationalist movements. Meets jointly with 23.608.

23.309 BRITISH NOVEL I (3) Reading and discussion of the major novelists of eighteenth century England: DeFoe, Richardson, Fielding, Smollett, and Sterne. Each novel is studied as a unique fiction and as a contribution to the novel form. Meets jointly with 23.609. Usually offered every fall.

23.310 BRITISH NOVEL II (3) Reading and discussion of such major novelists as Dickens, Thackeray, Eliot, Trollope, Hardy, and others. The emphasis is on form and technique. Meets jointly with 23.610. Usually offered every spring.

23.311 THE AMERICAN RENAISSANCE (3) Studies in Emerson, Thoreau, Whitman, Poe, Hawthorne, and Melville. The significance to American culture of their art and ideas. Meets jointly with 23.611.

23.312 REALISM AND NATURALISM IN AMERICAN LITERATURE (3) The course covers the period beginning about 1865 until World War I, during which American literature was influenced and modulated by two important movements, realism, and naturalism. The course studies the growth of those movements and the literary pieces which exemplify it. There is an examination of the esthetic, intellectual, and historical questions. Meets jointly with 23.612.

23.313 MODERN AMERICAN LITERATURE (3) A study of the broad modern foreground preceding the contemporary literary scene. Eliot, Hemingway, Faulkner, Frost, and others. Meets jointly with 23.613.

23.314 CONTEMPORARY AMERICAN LITERATURE (3) An exploration of the formal and thematic tendencies in recent American literature through readings of representative fiction, poetry, drama, and journalism. Meets jointly with 23.614.

23.315 POETRY IN AMERICA (3) Consideration, by close reading of selected poets, of some of the characteristics that help define American poetry. Meets jointly with 23.615.

23.316 RECENT AMERICAN POETRY (SINCE 1950) (3) An examination of the major figures and movements in the poetry of the period, with a concentration on Robert Lowell, Theodore Roethke, Richard Wilbur, James Dickey, and Gary Snyder. Meets jointly with 23.616.

23.317 BLACK AMERICAN WRITING (3) Survey of black American literature in the new world—the United States and the Caribbean—and the influences Africa has made on this literature: Phyllis Wheatley through Malcolm X. Meets jointly with 23.617.

23.318 AMERICAN NOVEL I (3) A survey of the American novel during the nineteenth century with emphasis on the literary evolution of a form as it expresses the historical evolution of a national consciousness. Novelists studied may include Charles Brockden Brown, James Fenimore Cooper, Harriet Beecher Stowe, Hawthorne, Melville, James, Twain, and Howells. Meets jointly with 23.618. Usually offered every fall.

23.319 AMERICAN NOVEL II (3) A survey of the American novel during the Modernist period with emphasis on the literary evolution of a form as it expresses the historical evolution of modern consciousness. Novelists studied may include Stephen Crane, Dreiser, Sinclair Lewis, Dos Passos, Fitzgerald, Hemingway, Faulkner, Nathanael West, and Henry Miller. Meets jointly with 23.619. Usually offered every spring.

STUDIES IN LITERARY FORM AND IDEAS

23.321 DEVELOPMENT OF THE NOVEL (3) The theory of the novel. A study of the form of the novel from its beginnings down through Robbe-Grillet. Readings in selected novelists and critics of the novel. Meets jointly with 23.621.

23.322 ELEMENTS OF POETRY (3) An introduction to the study of poetry as a literary genre. Form, style, metrics, the creation of effect, and critical method. Meets jointly with 23.622.

23.323 MODERN DRAMA (3) Modern drama, beginning with Ibsen and concluding with the most recent dramatic movements: theatre of the absurd, theatre of cruelty, etc. Meets jointly with 23.623.

23.324 THE SHORT STORY (3) Development of the short story as an art form. Readings and analysis of short stories by nineteenth and twentieth century European and American authors. Meets jointly with 23.624.

23.325 BIOGRAPHY (3) An introductory survey to this nonfiction form, emphasizing the historical development of biography as a literary form, starting with Boswell's *Life of Samuel Johnson*. Background material prior to this is included. Meets jointly with 23.625.

23.326 AUTOBIOGRAPHY (3) An introduction to the variety of forms within this nonfiction genre. The course stresses the modes of representing one's life, such as those considered definitive and authorized, and also reminiscences, memoirs, diaries, and letters. Meets jointly with 23.626.

23.327 INTRODUCTION TO FOLKLORE (3) A general survey of the forms of international and American folklore, verbal and nonverbal: superstition, magic, proverbs, riddles, jokes, legends, folktales, folksongs, ballads, folk music, games, calendar customs, folk religion, crafts and folk art. Some films and field trip assignments as well as lecture and discussion. This course is designed for majors and nonmajors. Meets jointly with 23.627.

23.328 ORAL NARRATIVE: FOLKTALES, BALLADS, AND EPICS: (3) Some major forms of American and international storytelling—what they are; how, why, and where they are performed; what they mean to their audiences; how they relate to written literature. Meets jointly with 23.628.

23.329 HISTORY AS THEME IN AMERICAN LITERATURE (3) Study of literary works in which the force of history functions as a major theme or in which the relationship between an individual and the force of history is central. An attempt to analyze metaphors of history as they emerge from and shape such works of literature as Hawthorne's *Scarlet Letter*, Thoreau's *On Civil Disobedience*, Melville's *Benito Cereno*, Warren's *All the King's Men*. Meets jointly with 23.629.

23.330 PSYCHOANALYSIS AND THE LITERARY PROCESS (3) After a brief introduction to psychoanalysis, an exploration of its implications for literary study: the necessary relations between authors and their works and between these same works and their readers, i.e., the dynamics of the reading process. Emphasis on apprehending and sharing personal interactions and literature. Meets jointly with 23.630.

23.331 THE ABNORMAL POINT OF VIEW (3) Selected novels and plays in which the action is perceived or dramatized through an "abnormal" point of view. The emphasis is on the technical aspects of a point of view, the author's resulting world-view, and the relationship between the two. The use of madness or abnormal perception as both a theme and an underlying technique is explored. Meets jointly with 23.631.

23.333 MODERN CRITICISM (3) Survey of key works influencing contemporary trends in literary theory and criticism. Prior experience in college level literature courses strongly recommended. Meets jointly with 23.633.

STUDIES IN WRITERS AND WORKS

23.336 CHAUCER (3) A study of the narrative art and moral vision of Chaucer's poetry. Directed readings in social, historical, and intellectual backgrounds. An introduction to the study of medieval literature. Meets jointly with 23.636.

23.337 SHAKESPEARE I (3) Selected earlier plays. Meets jointly with 23.637. Usually offered every fall.

23.338 SHAKESPEARE II (3) Selected later plays. Meets jointly with 23.638. Usually offered every spring.

23.339 MILTON (3) The course focuses on Milton as a thinker and a poet. Selections from the prose works are read and analyzed as background for Milton's thought. The majority of the semester is devoted to a close reading of the poems, which are studied with a view toward tracing Milton's development of form and his methods of projecting his world view. Meets jointly with 23.639.

23.340 JOYCE: *Ulysses* (3) *Ulysses* is to be intensively explored as a novel in which all crucial novelistic problems of the twentieth century converge: point-of-view, treatment of time, the role of style, fragmented narrative, use of myth, intrusion of history into fiction, autobiographical esotericism, and, of course, first and foremost, the problem of the reader versus the novel, the novel versus the reader. Seminar setting; discussion paramount. Meets jointly with 23.640.

23.341 JOYCE: *Finnegans Wake* (3) The setting-up of a framework within which the instructor and group of students can make the attempt to learn how to approach the *Wake* most fruitfully. It is intended to offer the opportunity to acquire the elements of a methodology for reading this difficult and endlessly rewarding book. Especially recommended to students interested in the notion of linguistic play. Meets jointly with 23.641.

23.342 SHAW (3) The complete Shaw: playwright, socialist, pamphleteer, revolutionist, creative evolutionist, and even poet. All the plays are read and as many political and social works as seem practicable. In addition, parallel reading of biographical and critical material is assigned. Meets jointly with 23.642.

23.343 BECKETT (Drama) (3) Examination of Beckett's development as a dramatist, from *Waiting for Godot* through *Not I*. Readings include radio and TV plays as well as stage plays. Seminar format. Meets jointly with 23.643.

23.344 FITZGERALD AND HEMINGWAY (3) A study of the fiction of Fitzgerald and Hemingway with emphasis upon the common theme of loss in their work. The relationship between both, and their place within the literary period of the twenties and thirties, are also explored, through main emphasis upon thematic analyses of specific works. Meets jointly with 23.644.

STUDIES IN COMPARATIVE LITERATURE AND LITERATURE IN TRANSLATION

23.351 RUSSIAN LITERATURE: SURVEY (3) Novels, short stories, and plays that provide a literary and socio-historical overview of major nineteenth and twentieth century Russian writers, including Pushkin, Lermontov, Gogol, Turgenev, Tolstoy, Dostoevsky, Chekhov, Pasternak, and Solzhenitsyn. Meets jointly with 23.651.

23.352 TOLSTOY (3) Selected fiction of Leo Tolstoy, a study of his narrative artistry and of his philosophical contributions. Meets jointly with 23.652.

23.353 DOSTOEVSKY (3) Selected fiction of Dostoevsky: intensive study of some of the major novels and some of the minor work. Meets jointly with 23.653.

23.354 FRENCH LITERATURE: SURVEY (3) Designed to introduce the student to selected master-

pieces of French literature. The reading list varies, but there are selections from *chanson de geste*, the medieval romance, Renaissance humanism, seventeenth-century classicism, the Enlightenment, Romanticism, and more recent literature. Meets jointly with 23.654.

23.355 FRENCH SYMBOLIST POETRY (3) An investigation of the French Symbolist poets and their effect upon modern literature and thought. Poets to be studied include Baudelaire, Rimbaud, Verlaine, and Mallarmé. Writers are read in translation; the instructor also makes use of the original French texts. Attention to French literary conventions in a cultural context. Meets jointly with 23.655.

23.356 EUROPEAN REALISM/NATURALISM (3) An analysis of the phenomena of European realism and naturalism as they developed out of European romanticism. Included in this study is an inquiry into the background and preparation of our own twentieth century literature and culture. Meets jointly with 23.656.

23.357 DIRECTIONS IN MODERN FICTION (3) Selected fiction which embodies distinctive threads of twentieth century writing. The emphasis is on both the underlying philosophical premises (such as existentialism) and technique (particularly point of view). Readings include works by such writers as Kafka, Golding, Camus, Faulkner, Robbe-Grillet, Lessing, and Bellow. Meets jointly with 23.657.

23.358 THE NOVEL IN THE THIRD WORLD (3) A study of the novel from the Third World: Africa, Asia, the Caribbean, the South Pacific, Latin America, and the Afro-American and Native American minorities in the United States. Special emphasis on the way culture dictates literary form. Meets jointly with 23.658.

23.359 AFRICAN LITERATURE (3) An introduction to contemporary African writing: the novel, the short story, poetry, and drama. An emphasis is placed upon the image of African cultures as depicted in these writings. Meets jointly with 23.659.

FILM

23.361 FILM AND LITERATURE (3) Adaptations of literature to film, and film to literature. Shared themes and techniques among story-telling arts. Psychological, social, and political implications of analogous works of poetry, fiction, drama, and film. Meets jointly with 23.661. Usually offered every fall.

23.362 NATIONAL CINEMA (3) Landmarks of the cinema from a particular country or region such as France, Italy, Eastern Europe, Japan, and the United States. Screenings, readings, and analysis, with attention to artistic movements, historical contexts, and clashing theories and styles. Meets jointly with 23.662.

23.363 MAJOR FILMMAKERS (3) Intensive study of one or two great directors such as Hitchcock, Antonioni, Fellini, Durosawa, Ozu, Chaplin, Bergman, and Ford. Screenings, in-depth analysis, and critical readings designed to explore evolving personal style, aesthetic and social context, and theoretical issues. Meets jointly with 23.663.

23.364 INDEPENDENT FILMMAKERS (3) Underground, experimental, avant-garde, radical, and personal films, usually short films made outside the established filmmaking industry. The freedom in the choice of subject matter and techniques, the variety of modes and styles, and the sheer intensity of works of Brakhage, Frampton, Belson, Warhol, Vertov, Dehren, and scores of others destroy the myth that only commercial, feature-length films can be great films. Meets jointly with 23.664.

CREATIVE WRITING

23.371 CREATIVE WRITING: FICTION (3) A writing workshop with students reading their work aloud in class and commenting on each other's efforts. The teacher reserves the right to have the last word. Graduate students are expected to submit 12,500 words or more. Meets jointly with 23.671. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* permission of instructor required.

23.372 CREATIVE WRITING: POETRY (3) An intensive approach to the techniques of verse writing, followed by several weeks of "workshop sessions" in which student poems receive responses from the whole class. Meets jointly with 23.672. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* permission of instructor required.

23.373 CREATIVE WRITING: FILM SCRIPT (3) An introduction to story writing and developing stories for the screen. A study of the special contributions of the writer to film art. Screenings, reading, writing, and rewriting. Meets jointly with 23.673. Usually offered every term. *Prerequisite:* permission of instructor required.

READING LISTS

23.380 READING LISTS (3) Student reads one of the twenty-three prepared lists covering major historical periods in literary history. Except for one final examination the course is fully independent. The department helps students enrolled for the same lists to contact one another. Students must come to the Department of Literature office to get standard departmental lists and course instructions, and to make arrangements for registration. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

23.390 INDEPENDENT READING COURSE IN LITERATURE (1-6)*

23.490 INDEPENDENT STUDY PROJECT IN LITERATURE (1-6)*

HONORS

23.398 DEPARTMENTAL HONORS, JUNIOR YEAR (3)

23.399 DEPARTMENTAL HONORS, JUNIOR YEAR (3)

23.498 DEPARTMENTAL HONORS, SENIOR YEAR (3)

23.499 DEPARTMENTAL HONORS, SENIOR YEAR (3)

INTERNSHIP PROGRAM

23.491 PRACTICAL INTERNSHIP IN LITERATURE (3) Practical work in writing and research for various agencies and publications. Experience in apprentice teaching with private schools and diverse groups. Project must be approved in advance by department chairman and/or undergraduate advisor. Usually offered every term.

Graduate and Advanced Undergraduate Courses

23.590 INDEPENDENT READING COURSE IN LITERATURE (1-6)*

Graduate Courses

23.600 HISTORY OF THE ENGLISH LANGUAGE (3) Development of the language from Old English to Modern English, with special studies on phonology, morphology, semantics, and vocabulary. Meets jointly with 23.300.

STUDIES OF LITERATURE IN HISTORIC/NATIONAL CONTEXT

23.601 CELTIC MYTH AND LITERATURE (3) Shows the vital importance of literature in all aspects of early Indo-European society—religion, magic, government, law, education, etc.—by examining the powers of the poet among the medieval Irish and Welsh. Course material includes readings in history, archaeology, social structure, art, and myth, as well as major sagas and poems of Ireland and Wales. Meets jointly with 23.301.

23.602 MEDIEVAL LITERATURE (3) The beginnings of literature in Western Europe. A study of that literature as the definition, celebration, and examination of the aesthetic and ethical values of medieval culture. Medieval epic, drama, lyric, and romance in translation. Meets jointly with 23.302.

23.603 SEVENTEENTH CENTURY BRITISH LITERATURE (3) A study of British literature in the framework of the political, religious, and intellectual climate of seventeenth century England. The investigation includes the form and style of representative drama, poetry, and prose of the age. Meets jointly with 23.303.

23.604 EIGHTEENTH CENTURY ENGLISH LITERATURE (3) Outstanding authors and dominant literary forms in the neo-Classical traditions. Focus on Dryden, Swift, Fielding, and Johnson. Meets jointly with 23.304.

23.605 ROMANTIC BRITISH LITERATURE (3) Elements of Romanticism, with close attention to individual literary artists. Meets jointly with 23.305.

23.606 VICTORIAN AND EDWARDIAN LITERATURE (3) Poetry, fiction, and nonfiction prose (1830–1915) reflecting a time of intellectual, social, and religious turmoil and transition. The major writers were confronting crises of belief and value that affected them and their whole society. Their work is a response to these crises. Meets jointly with 23.306.

* See description under General Curriculum Information in this publication.

23.607 MODERN BRITISH LITERATURE (3) Selected literature by twentieth century British writers. The course considers both the changing ideas and changing form of modern literature in Britain. Matters of technique, style, and form, as well as thematic considerations are discussed. Readings include Joyce, Lawrence, Forster, Woolf, Huxley, Murdoch, Golding, Fowles, and others, as well as selected poets and essayists. Meets jointly with 23.307.

23.608 THE IRISH RENAISSANCE (3) Yeats, Joyce, Synge, O'Casey, Frank O'Connor, Liam O'Flaherty and other major writers of the modern Anglo-Irish literary tradition. Some attention is paid to the recent history of Ireland, and to the relationship between literary and political nationalist movements. Meets jointly with 23.308.

23.609 BRITISH NOVEL I (3) Reading and discussion of major novelists of eighteenth century England: DeFoe, Richardson, Fielding, Smollett, and Sterne. Each novel is studied as a unique fiction and as a contribution to the novel form. Meets jointly with 23.309. Usually offered every fall.

23.610 BRITISH NOVEL II (3) Reading and discussion of such major novelists as Dickens, Thackeray, Eliot, Trollope, Hardy, and others. The emphasis is on form and technique. Meets jointly with 23.310. Usually offered every spring.

23.611 THE AMERICAN RENAISSANCE (3) Studies in Emerson, Thoreau, Whitman, Poe, Hawthorne, and Melville. The significance to American culture of their art and ideas. Meets jointly with 23.311.

23.612 REALISM AND NATURALISM IN AMERICAN LITERATURE (3) The course covers the period beginning about 1865 until World War I, during which American literature was influenced and modulated by two important movements, realism and naturalism. The course studies the growth of those movements and the literary pieces which exemplify it. There is an examination of the aesthetic, intellectual, and historical questions. Meets jointly with 23.312.

23.613 MODERN AMERICAN LITERATURE (3) A study of the broad modern foreground preceding the contemporary literary scene. Eliot, Hemingway, Faulkner, Frost, and others. Meets jointly with 23.313.

23.614 CONTEMPORARY AMERICAN LITERATURE (3) An exploration of the formal and thematic tendencies in recent American literature through readings of representative fiction, poetry, drama, and journalism. Meets jointly with 23.314.

23.615 POETRY IN AMERICA (3) Consideration, by close reading of selected poets, of some of the characteristics that help define American poetry. Meets jointly with 23.315.

23.616 RECENT AMERICAN POETRY (Since 1950) (3) An examination of the major figures and movements in the poetry of the period, with a concentration on Robert Lowell, Theodore Roethke, Richard Wilbur, James Dickey, and Gary Snyder. Meets jointly with 23.316.

23.617 BLACK AMERICAN WRITING (3) Survey of black American literature in the new world—the United States and the Caribbean—and the influences Africa has made on this literature: Phyllis Wheatley through Malcolm X. Meets jointly with 23.317.

23.618 AMERICAN NOVEL I (3) A survey of the American novel during the nineteenth century with emphasis on the literary evolution of a form as it expresses the historical evolution of a national consciousness. Novelists studied may include Charles Brockden Brown, James Fenimore Cooper, Harriet Beecher Stowe, Hawthorne, Melville, James, Twain, and Howells. Meets jointly with 23.318. Usually offered every fall.

23.619 AMERICAN NOVEL II (3) A survey of the American novel during the Modernist period with emphasis on the literary evolution of a form as it expresses the historical evolution of modern consciousness. Novelists studied may include Stephen Crane, Dreiser, Sinclair Lewis, Dos Passos, Fitzgerald, Hemingway, Faulkner, Nathanael West, and Henry Miller. Meets jointly with 23.319. Usually offered every spring.

STUDIES IN LITERARY FORMS AND IDEAS

23.621 DEVELOPMENT OF THE NOVEL (3) The theory of the novel. A study of the form of the novel from its beginnings down through Robbe-Grillet. Readings in selected novelists and critics of the novel. Meets jointly with 23.321.

23.622 ELEMENTS OF POETRY (3) An introduction to the study of poetry as a literary genre. Form, style, metrics, the creation of effect, and critical method. Meets jointly with 23.622.

23.623 MODERN DRAMA (3) Modern drama, beginning with Ibsen and concluding with the

most recent dramatic movements: theatre of the absurd, theatre of cruelty, etc. Meets jointly with 23.323.

23.624 THE SHORT STORY (3) Development of the short story as an art form. Readings and analysis of short stories by nineteenth and twentieth century European and American authors. Meets jointly with 23.324.

23.625 BIOGRAPHY (3) An introductory survey to this nonfiction form, emphasizing the historical development of biography as a literary form, starting with Boswell's *Life of Samuel Johnson*. Background material prior to this is included. Meets jointly with 23.325.

23.626 AUTOBIOGRAPHY (3) An introduction to the variety of forms within this nonfiction genre. The course stresses the modes of representing one's life, such as those considered definitive and authorized, and also reminiscences, memoirs, diaries, and letters. Meets jointly with 23.326.

23.627 INTRODUCTION TO FOLKLORE (3) A general survey of the forms of international and American folklore, verbal and nonverbal: superstition, magic, proverbs, riddles, jokes, legends, folktales, folksongs, ballads, folk music, games, cures, calendar customs, folk religion, crafts, and folk art. Some films and field trip assignments as well as lecture and discussion. Designed for majors and nonmajors. Meets jointly with 23.327.

23.628 ORAL NARRATIVE: FOLKTALES, BALLADS, AND EPICS (3) Some major forms of American and international storytelling—what they are; how, why, and where they are performed; what they mean to their audiences; how they relate to written literature. Meets jointly with 23.328.

23.629 HISTORY AS THEME IN AMERICAN LITERATURE (3) Study of literary works in which the force of history functions as a major theme or in which the relationship between an individual and the force of history is central. An attempt to analyze metaphors of history as they emerge from and shape such works of literature as Hawthorne's *Scarlet Letter*, Thoreau's *On Civil Disobedience*, Melville's *Benito Cereno*, Warren's *All the King's Men*. Meets jointly with 23.329.

23.630 PSYCHOANALYSIS AND THE LITERARY PROCESS (3) After a brief introduction to psychoanalysis, an exploration of its implications for literary study: the necessary relations between authors and their works and between these same works and their readers, i.e., the dynamics of the reading process. Emphasis on apprehending and sharing personal interactions and literature. Meets jointly with 23.330.

23.631 THE ABNORMAL POINT OF VIEW (3) Selected novels and plays in which the action is perceived or dramatized through an "abnormal" point of view. The emphasis is on the technical aspects of point of view, the author's resulting world-view, and the relationship between the two. The use of madness or abnormal perception as both a theme and an underlying technique is explored. Meets jointly with 23.331.

23.633 MODERN CRITICISM (3) Survey of key works influencing contemporary trends in literary theory and criticism. Prior experience in college level literature courses strongly recommended. Meets jointly with 23.333.

STUDIES IN WRITERS AND WORKS

23.636 CHAUCER (3) A study of the narrative art and moral vision of Chaucer's poetry. Directed readings in social, historical, and intellectual backgrounds. An introduction to the study of medieval literature. Meets jointly with 23.336.

23.637 SHAKESPEARE I (3) Selected earlier plays. Meets jointly with 23.301. Usually offered every fall.

23.638 SHAKESPEARE II (3) Selected later plays. Meets jointly with 23.338. Usually offered every spring.

23.639 MILTON (3) The course focuses on Milton as a thinker and a poet. Selections from the prose works are read and analyzed as background for Milton's thought. The majority of the semester is devoted to a close reading of the poems, which are studied with a view toward tracing Milton's development of form and his methods of projecting his world view. Meets jointly with 23.339.

23.640 JOYCE: *Ulysses* (3) *Ulysses* is to be intensively explored as a novel in which all crucial novelistic problems of the twentieth century converge: point-of-view, treatment of time, the role of style, fragmented narrative, use of myth, intrusion of history into fiction, autobiographical esotericism, and of course, first and foremost, the problem of the reader versus the novel, the novel versus the reader. Seminar setting; discussion paramount. Meets jointly with 23.340.

23.641 JOYCE: *Finnegans Wake* (3) The setting-up of a framework within which the instructor and a group of students can make the attempt to learn how to approach the *Wake* more fruitfully. It is intended to offer the opportunity to acquire the elements of a methodology for reading this difficult and endlessly rewarding book. Especially recommended to students interested in the notion of linguistic play. Meets jointly with 23.341.

23.642 SHAW (3) The complete Shaw: playwright, socialist, pamphleteer, revolutionist, creative evolutionist, and even poet. All the plays are read and as many political and social works as seem practicable. In addition, parallel reading of biographical and critical material is assigned. Meets jointly with 23.342.

23.643 BECKETT (Drama) (3) Examination of Beckett's development as a dramatist, from *Waiting for Godot* through *Not I*. Readings include radio and TV plays as well as stage plays. Seminar format. Meets jointly with 23.343.

23.644 FITZGERALD AND HEMINGWAY (3) A study of the fiction of Fitzgerald and Hemingway with emphasis upon the common theme of loss in their work. The relationship between both, and their place within the literary period of the twenties and thirties, are also explored, though main emphasis is upon thematic analyses of specific works. Meets jointly with 23.344.

STUDIES IN COMPARATIVE LITERATURE AND LITERATURE IN TRANSLATION

23.651 RUSSIAN LITERATURE: SURVEY (3) Novels, short stories, and plays that provide a literary and socio-historical overview of major nineteenth and twentieth century Russian writers, including Pushkin, Lermontov, Gogol, Turgenev, Tolstoy, Dostoevsky, Chekhov, Pasternak, and Solzhenitsyn. Meets jointly with 23.351.

23.652 TOLSTOY (3) Selected fiction of Leo Tolstoy, a study of his narrative artistry and of his philosophical contributions. Meets jointly with 23.352.

23.653 DOSTOEVSKY (3) Selected fiction of Dostoevsky: intensive study of some of the major novels and some of the minor work. Meets jointly with 23.353.

23.654 FRENCH LITERATURE: SURVEY (3) Designed to introduce the student to selected masterpieces of French Literature. The reading list varies but there are selections from *chanson de geste*, the medieval romance, Renaissance humanism, seventeenth century classicism, the Enlightenment, Romanticism, and more recent literature. Meets jointly with 23.354.

23.655 FRENCH SYMBOLIST POETRY (3) An investigation of the French Symbolist poets and their effect upon modern literature and thought. Poets studied include Baudelaire, Rimbaud, Verlaine, and Mallarmé. Writers are read in translation; the instructor also makes use of the original French texts. Attention to French literary conventions in a cultural contexts. Meets jointly with 23.355.

23.656 EUROPEAN REALISM/NATURALISM (3) An analysis of the phenomena of European realism and naturalism as they developed out of European romanticism. Included in this study is an inquiry into the background and preparation of our own twentieth century literature and culture. Meets jointly with 23.356.

23.657 DIRECTIONS IN MODERN FICTION (3) Selected fiction which embodies distinctive threads of twentieth century writing. The emphasis is on both the underlying philosophical premises (such as existentialism) and technique (particularly point of view). Readings include works by such writers as Kafka, Golding, Camus, Faulkner, Robbe-Grillet, Lessing, and Bellow. Meets jointly with 23.357.

23.658 THE NOVEL IN THE THIRD WORLD (3) A study of the novel from the Third World: Africa, Asia, the Caribbean, Afro-American, American Indian, and the South Pacific. Special emphasis on the way culture dictates literary forms. Meets jointly with 23.358.

23.659 AFRICAN LITERATURE (3) An introduction to contemporary African writing: the novel, the short story, poetry, and drama. An emphasis is placed upon the image of African cultures as depicted in these writings. Meets jointly with 23.359.

FILM

23.661 FILM AND LITERATURE (3) Adaptations of literature to film, and film to literature. Shared themes and techniques among story-telling arts. Psychological, social, and political implications of analogous works of poetry, fiction, drama, and film. Meets jointly with 23.361. Usually offered every fall.

23.662 LANDMARKS IN CINEMA (3) Landmarks of the cinema from a particular country or region such as France, Italy, Eastern Europe, Japan, and the United States. Screenings, readings, and analysis, with attention to artistic movements, historical contexts, and clashing theories and styles. Meets jointly with 23.362.

23.663 MAJOR FILMMAKERS (3) Intensive study of one or two great directors such as Hitchcock, Antonioni, Fellini, Kurosawa, Ozu, Chaplin, Bergman, and Ford. Screenings, in-depth analysis, and critical readings designed to explore evolving personal style, aesthetic and social context, and theoretical issues. Meets jointly with 23.363.

23.664 INDEPENDENT FILMMAKERS (3) Underground, experimental, avant-garde, radical, and personal films, usually short films made outside the established filmmaking industry. The freedom in the choice of subject matter and techniques, the variety of modes and styles, and the sheer intensity of works of Brakhage, Frampton, Belson, Warhol, Vertov, Dehnen, and scores of others destroy the myth that only commercial, feature-length films can be great films. Meets jointly with 23.364.

CREATIVE WRITING

23.671 CREATIVE WRITING: FICTION (3) A writing workshop with students reading their work aloud in class and commenting on each other's efforts. The teacher reserves the right to have the last word. Graduate students are expected to submit 12,500 words or more. Meets jointly with 23.371. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* permission of instructor required.

23.672 CREATIVE WRITING: POETRY (3) An intensive approach to the techniques of verse writing, followed by several weeks of "workshop sessions" in which student poems receive responses from the whole class. Meets jointly with 23.372. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* permission of instructor required.

23.673 CREATIVE WRITING: FILM SCRIPT (3) An introduction to story writing and developing stories for the screen. A study of the special contributions of the writer to film art. Screenings, reading, writing and rewriting. Meets jointly with 23.373. Usually offered every term. *Prerequisite:* permission of instructor required.

23.690 INDEPENDENT STUDY PROJECT IN LITERATURE (1-6)*

23.691 IN-SERVICE TRAINING IN COLLEGE TEACHING (1-6) Usually offered every term.

23.725 STUDIES IN LITERARY MODES (3) Graduate seminar. A study of various kinds of literary expression. Topic changed yearly. Previous topics have included The Comic Vision, Short American Fiction, The Introspective Novel, Formal Theory of the Novel, Tragedy, etc. May be repeated for credit within the same term; topic must be different. Usually offered every term.

23.726 STUDIES IN MAJOR WRITERS (3) Graduate seminar. A study of the works of one or two selected writers. Topic changed yearly. Previous topics have included Shakespeare, Keats, Dickens, Whitman, Eliot, Yeats, and Melville. Usually offered every term.

23.750 THEORY OF LITERARY CRITICISM (3) Required of Ph.D. candidates. Open to other graduate students by permission. Usually offered every fall.

23.753 THEORY OF LITERARY HISTORY (3) Required of all Ph.D. candidates. Open to other graduate students by permission. Usually offered every spring.

23.756 THEORY OF LITERARY FORM (3) Required of Ph.D. candidates. Open to other graduate students by permission. Usually offered alternate falls.

23.757 THEORY OF LITERARY FORM (3) Required of Ph.D. candidates. Open to other graduate students by permission. Usually offered alternate springs.

23.758 THEORY OF LITERARY IDEAS (3) Required of Ph.D. candidates. Open to other graduate students by permission. Usually offered alternate falls.

23.759 THEORY OF LITERARY IDEAS (3) Required of Ph.D. candidates. Open to other graduate students by permission. Usually offered alternate springs.

23.797 MASTER'S THESIS SEMINAR (1-6)

* See description under General Curriculum Information in this publication.

23.799 DOCTORAL DISSERTATION SEMINAR (1-6)

75.700 THE FOLGER SEMINAR IN RENAISSANCE AND EIGHTEENTH CENTURY STUDIES (3) Each semester three graduate seminars are offered. Graduate students at The American University are eligible to participate and should consult either the chairman of the University's Interdisciplinary Studies Committee or the department's Director of M.A. Studies. May be taken more than one semester. Usually offered every term.

Marine Science

DIRECTOR Michael A. Champ, Department of Biology

Associate Director Robert Chinnis, School of Education

The American University offers a wide array of field courses in environmental, marine, nautical, and oceanographic sciences. Students may participate in course work available on campus during the regular academic year (see the offerings in biology and environmental systems management and the Consortium of Universities of the Washington Metropolitan Area). Complementary to these, is a special Summer Field Program offered through The Marine Science Consortium, a nonprofit organization of 18 colleges and universities.

SUMMER FIELD PROGRAM The Marine Science Consortium has two field laboratories: (1) The Wallops Island Marine Science Center (WIMSC) and (2) The Lake Erie Marine Science Center (LEMSC), and a field station at Lewes, Delaware, for support operations of the 90-foot *R.V. Annandale*, an oceanographic research vessel.

The Wallops Island Marine Science Center is located on the southern Atlantic coast of the Delmarva Peninsula just south of the Maryland-Virginia state line. The laboratories are adjacent to the Wallops Island Base of the National Aeronautics and Space Administration (NASA), about 15 miles from the town of Chincoteague, Virginia. The laboratories are located in an area with immediate access to representatives of nearly every major local environment. Freshwater lakes, streams, marshes, and swamps abound; forest, meadows, and cultivated fields are adjacent to the center; marine environments include extensive salt marshes, sandy shores, docks and pilings, estuaries, lagoons (Chesapeake Bay, Chincoteague Bay, and the Atlantic Ocean).

The Lake Erie Marine Science Center, located in Erie, Pennsylvania, was established in 1975 and utilizes the facilities of nearby Gannon College and a small lakefront property opposite the famous Presqu' Isle State Park.

Both laboratories have complete dormitory, cafeteria, and seagoing facilities. There are about ten vessels for classes, the largest of which is the 90 foot *R.V. Annandale*, A floating oceanographic laboratory with a crew of five and space for 10 students and scientists. Students live at the laboratories and take only one course in a three-week session; they may register for as many as five three-week courses during any one summer. Professors normally live at the laboratories allowing immediate access and close student-teacher contact.

Courses are fully accredited and may be applied toward degree programs in many departments. Many are open to students without prerequisites, and field courses may apply as prerequisites to other courses. This enables laymen and even some advanced high school students to enroll. Through 90.500, graduate students may attend undergraduate courses as part of the requirements for graduate credit in the subject. Classes begin in mid-May and are in five three-week sessions through August.

For additional information, class schedules, application, and special registration forms, contact the Marine Science Program, c/o Department of Biology, The American University, Washington, D.C.; telephone: (202) 686-2177 or 2091.

Courses of Instruction

Undergraduate Courses

90.110 INTRODUCTION TO OCEANOGRAPHY (3) Physical, chemical, biological, and geological aspects of oceans. Emphasis on laboratory and at-sea assignments. At Wallops Island. Usually offered every summer.

90.181 INTRODUCTION TO LIMNOLOGY (3) Morphology and evolution of lakes and streams; physical and chemical characteristic of inland waters; aquatic biota with emphasis on the microscopic forms and their ecology; annual temperature cycle; water quality; laboratories about equally divided into field and beach; functional relationships are stressed. Usually offered every summer.

90.211 FIELD METHODS IN OCEANOGRAPHY (3) Marine environment field work to instruct in use and application of standard oceanographic instruments and sampling devices; independent research through the initial stages of scientific project. At Wallops Island. Usually offered every summer. *Prerequisite:* 90.110 or permission of Marine Science director.

90.212 MARINE NAVIGATION (3) Art and science of safely bringing a boat from one position to another in body of water. Topics covered include piloting (navigation within sight of land), radio bearings by radio direction finder, LORAN, OMEGA, electronic navigation, radar, celestial navigation, circles of position, celestial fix, Greenwich mean time, Greenwich hour angle. At Wallops Island. Usually offered every summer. *Prerequisite:* four years high school math or permission of Marine Science director.

90.221 MARINE INVERTEBRATES (3) Invertebrate phyla: development, reproduction, structure, function, and classification. Laboratory and field experience in collection, preservation, and classification. At Wallops Island. Usually offered every summer. *Prerequisite:* one year biology or permission of Marine Science director.

90.241 MARINE BIOLOGY (3) Plant and animal life in marine environment. Emphasis on physical, chemical, and environmental factors affecting the biota in intertidal, open water, and benthic habitats. At Wallops Island. Usually offered every summer. *Prerequisites:* botany and zoology or permission of Marine Science director.

90.250 MANAGEMENT OF WETLAND WILDLIFE (3) Ecology and management of wetland wildlife, particularly of freshwater marshes and saltwater marshes. Special emphasis on ecosystem approach. At Wallops Island. Usually offered every summer.

90.260 MARINE ECOLOGY (3) Relationship of plants and animals to physical, chemical, and biological factors. At Wallops Island. Usually offered every summer. *Prerequisites:* one year of biology or permission of Marine Science director.

90.270 SCUBA DIVING (3) Lectures, pool training, open water check-out, advanced techniques, hookah diving, and specialty diving. NAUI Diver certification. Students buy approved gear at reduced rates when classes begin. At Wallops Island. Usually offered every summer. *Prerequisites:* swimming ability and good health (standard diving physical form required).

90.280 FIELD BIOLOGY (3) Principles of ecology and natural history of selected plants and animals in terrestrial, freshwater, and marine environment. Course is suitable for nonscience majors. At Wallops Island. Usually offered every summer.

90.281 FIELD METHODS IN LIMNOLOGY (3) Introduces the student to techniques utilized in the dynamic study of physical, chemical, and biological parameters of lakes. At Lake Erie. Usually offered every summer.

90.283 AQUATIC ECOLOGY (3) Laboratory and field oriented. A few lectures presented to emphasize the basic ecological principles of community ecology, special emphasis placed on deleterious factors of the environment and how they effect community structure and function. At Lake Erie. Usually offered every summer.

90.298 TOPICS IN MARINE SCIENCE (3) Selection of individual topic courses developed to present introductory information in a specific area of study such as Mariculture Field Trip, Behavior of Marine Organisms, and Sailing and Seamanship. At Wallops Island. May be repeated for credit within the same term; topic must be different. Usually offered every summer. *Prerequisite:* based on each individual course.

90.331 CHEMICAL OCEANOGRAPHY (3) Treatment of wide range of oceanic chemical phenomena, including salinity and age of oceans, sources and residence times of chemical constituents in sea water, geo-chemical cycles of nutrients, application of isotopes to paleotemperature analysis, carbon dioxide/carbonate system in oceans, mineral resources, and trace elements. Sampling and laboratory analysis techniques. At Wallops Island. Usually offered every summer. *Prerequisites:* 90.110 and one year of chemistry or permission of Marine Science director.

90.342 MARINE BOTANY (3) Marine and marine fringe plants of the Middle Atlantic Coast;

taxonomy, ecology, distribution, life histories, physiology, and economic status. Collecting, preserving, identifying, and herbarium cataloging stressed. Exercises in plant ecology, deep core pollen analysis, and marine microbiology included. At Wallops Island. Usually offered every summer. *Prerequisites:* biology, botany, or permission of Marine Science director.

90.343 MARINE ICTHYOLOGY (3) Marine fishes, morphology, anatomy, physiology, systematics, behavior, zoogeography, life histories, and speciation. At Wallops Island/Florida field trip. Usually offered every summer. *Prerequisite:* general zoology.

90.344 ANATOMY OF MARINE CHORDATES (3) Trends in evolution of various vertebrate lines. Dissection of representative marine vertebrates, particularly those collected live on field trips. At Wallops Island. Usually offered every summer. *Prerequisite:* six hours of biology, including zoology.

90.345 ORNITHOLOGY (3) Introduces student to avian fauna of seacoast and enables comparison with inland species. Lectures on distribution, behavior, physiology, and anatomy of birds. At Wallops Island. Usually offered every summer. *Prerequisite:* biology or permission of Marine Science director.

90.362 MARINE GEOLOGY (3) Structural and sedimentary environments of continental shelf, slope, and ocean basin. Crustal structure of the earth and its relation to sedimentary record and geologic history of the oceans is examined. At Wallops Island. Usually offered every summer. *Prerequisites:* 90.110 and physical geology or permission of Marine Science director.

90.364 PHYSICAL OCEANOGRAPHY (3) Physical and chemical properties of sea water, ocean currents, interaction of sea and atmosphere. Physics of sea and sea floor. At Wallops Island. Usually offered every summer. *Prerequisites:* 90.110, year of physics and calculus or permission of Marine Science director.

90.382 GEOLOGY OF THE GREAT LAKES (3) Origin and classification of lakes: morphology and mechanics of lake basins and water; geologic history of the Great Lakes; laboratories dominate over lecture material with fieldwork and practical experience stressed. At Lake Erie. Usually offered every summer. *Prerequisite:* physical geology.

90.384 ECOLOGY AND TAXONOMY OF MARSH PLANTS OF GREAT LAKE REGION (3) Designed to identify the fresh water marsh plants of the Lake Erie Region. Consists of field trips to marsh areas; plants collected and identified through the use of standard keys. Each plant is studied in its ecological habitat and its importance in food webs is emphasized. At Lake Erie. Usually offered every summer. *Prerequisite:* general botany.

90.398 DEVELOPMENT OF MARINE ORGANISMS (3) Study of developmental patterns, processes, and principles of marine animals, including special patterns specific for marine invertebrates and vertebrate types. At Wallops Island. Usually offered every summer. *Prerequisite:* biology or zoology, including lab work.

90.420 MARINE MICROPALAEONTOLOGY (3) Living representatives of microorganisms important in fossil record. Emphasis on taxonomy, morphology, evolution, and ecology of the Foraminifera (Sarcodina). Other groups considered. Sample collecting, preparation, and analysis. At Wallops Island. Usually offered every summer. *Prerequisite:* geology or biology or permission of Marine Science director.

90.431 ECOLOGY OF MARINE PLANKTON (3) Phytoplankton and zooplankton in marine and brackish environments. Qualitative or quantitative comparisons made between planktonic populations or various types of habitats in relation to primary and secondary productivity. At Wallops Island. Usually offered every summer. *Prerequisite:* one year of biology.

90.458 EXPLORATION METHODS IN MARINE GEOLOGY (3) Geophysical and geologic instruments and techniques used to study bottom topography and geology. Emphasis on basic geophysical and geologic instruments. At Wallops Island. Usually offered every summer. *Prerequisites:* physical geology and one year of mathematics or permission of Marine Science director.

90.459 COASTAL GEOMORPHOLOGY (3) Coastal geomorphology with emphasis on Late Cenozoic and Pleistocene sea-level changes in response to world-wide continental glaciation. Field studies of Pleistocene deposits and weathering of these deposits. At Wallops Island. Usually offered every summer. *Prerequisite:* one year of geology.

90.481 GREAT LAKES PLANKTON (3) Study of the populations, identification techniques, distributional ecology, and community functions of the plankton of the Great Lakes. Emphasis on field and laboratory techniques; lectures coordinated with the topics covered in the laboratory work. At Lake Erie. Usually offered every summer. *Prerequisite:* one year of biology.

90.483 **ICHTHYOLOGY OF THE GREAT LAKES (3)** General principals of ichthyology including evolution, anatomy, physiology, reproduction, development, behavior, ecology, and biogeography. Fresh water fishes emphasized with greatest emphasis on fishes of temperate North America. Laboratories include field trips to various sites in Lake Erie and its tributaries and experience in sampling techniques, identification, aging, stomach content analysis, and general anatomy. At Lake Erie. Usually offered every summer. *Prerequisite:* one year of biology.

Graduate and Advanced Undergraduate Courses

90.500 **PROBLEMS IN MARINE SCIENCE (1-9)** Option A: Student elects to take 200-400-level course in which he desires advanced work and completes in addition to those requirements an approved project in area under direction of instructor. Option B: Independent research project. Proposal must be approved by academic advisor and the Marine Science Consortium. Usually offered every summer. *Prerequisites:* graduate or undergraduate with advanced standing using one of two options.

90.520 **MARINE MICROBIOLOGY (3)** Methods of collection involving sterile sample isolation, enrichment culturing, and techniques for identification of marine bacteria, yeasts, and fungi. Physiological nature of marine water with reference to effect on microbial populations. Usually offered every summer. *Prerequisite:* course in general microbiology.

90.530 **COASTAL SEDIMENTATION (3)** Study of depositional environments of marine dominated shorelines; their processes, sediments, sedimentary facies, and models for recognizing ancient counterparts in rock record; growth and development of barrier island-tidal deltas. Usually offered every summer. *Prerequisites:* introduction course in sedimentation or marine geology or permission of Marine Science director.

90.540 **ENVIRONMENTAL SCIENCE EDUCATION (3)** Designed primarily for elementary school teachers. Study of environment from the seashore and wetlands to deciduous forest; various aspects of environmental improvements; environmental education curricula in schools; extensive field work, project. No special training required. Usually offered every summer. *Prerequisite:* graduate standing or permission of Marine Science director.

90.570 **MARINE POLLUTION RESEARCH CRUISE (3)** Oceanographic Pollution Cruise seven days aboard the *R.V. Annandale* to investigate the effects of ocean disposal of municipal and industrial wastes on chemical, physical, and biological oceanographic parameters. Investigations conducted before, during, and after the dumping with fate and behavior (dispersion and degradation) studies of pollutants. Procedures, techniques, and equipment prepared and standardized prior to cruise and final project report required. *Prerequisites:* 90.211, 90.331, or Biological Oceanography, or previous cruise and permission of Marine Science director.

90.598 **ADVANCED TOPICS IN MARINE SCIENCE (3)** A selection of individual topics courses developed to present advanced information in a specific area of study such as: Physical Oceanography of the Near Shore Zone, Water and Waste Water Problems in Coastal Areas, and Physical Oceanography. At Wallops Island. May be repeated for credit within the same term; topic must be different. Usually offered every summer. *Prerequisite:* based on individual topics offered.

Mathematics, Statistics, and Computer Science

CHAIRMAN Mary W. Gray

FULL-TIME FACULTY

Professor D. S. Crosby, M. W. Gray, R. A. Holzager, W. W. Jacobs, B. P. Korin, N. Macon, G. S. Quinn (Emeritus), S. H. Schot, J. H. Smith (Emeritus)

Associate Professor A. M. Barron, I. L. Chang, M. Freeman, E. B. McCue, H. Rosenblatt, J. S. Sunley

Assistant Professor J. Blum, D. A. Gomberg, W. G. Kolata, C. T. Machlin, S. Parker, H. Wilson

The department is unusual in that it combines the three fields of mathematics, statistics, and computer science. This allows a student with an interest in the mathematical sciences to choose a program within a single department which particularly suits his or her own needs and to change the

emphasis of his or her program without loss of time. Because of its location in the Washington, D.C., area, the department is in one of the greatest applied mathematical science areas in the world.

MATHEMATICS Mathematics may be studied as an intellectual discipline for its own sake, as pure mathematics, or as a professional tool for application to the problems of other disciplines. Majors in mathematics will receive firm grounding in the theory and techniques of algebra, analysis, and other fields as a basis for further work in pure or applied mathematics, and for graduate studies. The major in applied mathematics offers training in mathematical problem-solving techniques without emphasis on abstract theory. This program is not as firm a foundation for graduate work as the mathematics major, but is tailored to the student who will need to apply mathematical, statistical, and computer methods to practical problems.

STATISTICS Statistics is concerned with the collection, organization, analysis, interpretation, and presentation of information which can be stated in numerical form. A student majoring in statistics has two tracks available. Those who intend to continue with graduate work in statistics or those with an interest in the theory of statistical methods would follow the sequence for mathematical statistics which requires a strong background in mathematics. Students wishing an emphasis in the use of statistical techniques should follow the sequence for applied statistics. The latter program is especially appropriate as a secondary emphasis for students who have a strong interest in a field of application.

COMPUTER SCIENCE Computer science deals with computers and computing, including the organization of computers, languages used in communicating with them, problem analysis, algorithm development, and applications in a multitude of disciplines. The computer science program offers two tracks. Students who desire a concentrated exposure to computer science, or who intend to do graduate work in computer science, elect the computer science major. Students who intend to use their computer science knowledge and skill in conjunction with another discipline, elect the applied computer science emphasis within the computer science major. The two programs share a set of core courses which insure a balanced presentation of the practical and theoretical aspects of computer science. These programs provide the student with a background which may form the basis for professional employment as a systems programmer, systems analyst, scientific programmer, applications programmer, or for graduate study.

Undergraduate Program in Computer Science

TRACKS Computer Science or Applied Computer Science.

ADMISSION TO THE PROGRAM Requires a 2.00 cumulative grade-point average, the completion of 41.111 and 41.222, or 41.101 and 41.102 with a grade of C or better, and completion of 40.280 and 40.281 with a grade of C or better.

Set Requirements *Computer Science:* 40.280, 40.281, 40.340, 40.341, 40.540, and 42.202. *Applied Computer Science:* 40.280, 40.281, 40.340, 40.341, 40.460, 40.540, and 42.202.

Required Options *Computer Science:* 41.101 and 41.102, or 41.111 and 41.222; at least three additional courses approved by the student's advisor from the following list: 40.460, 40.541, 40.550, 40.565, 40.566, 40.568, 40.570, 40.582, 40.583, 40.584, 40.585, 40.587, 40.596 (nonrecurring selected topics), 41.560, 41.561, 41.562, and 41.563; and two additional courses in the department approved by the student's advisor. *Applied Computer Science:* 41.101 and 41.102 or 41.111 and 41.222; and two additional courses in the department approved by the student's advisor.

Related Requirements The applied computer science track requires three courses in field of application to be selected in consultation with the student's advisor.

Recommendations Students expecting to pursue graduate study in computer science should elect the computer science track.

Special Opportunities Undergraduate assistantships, and work study arrangements with government agencies and private firms are available.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Computer Science.

Undergraduate Program in Mathematics

ADMISSION TO THE PROGRAM Requires a 2.00 cumulative grade-point average and the completion of 41.111, 41.222, and 41.223 with a grade of C or better.

Set Requirements 41.111, 41.222, 41.223, 41.310, 41.322, 41.512, 41.513, 41.520 and 41.521.

Required Options Three courses selected from 41.321, 41.440, 40.460, 40.550, 41.474, 41.502, 41.503, 41.515, 41.540, 41.550, 41.551, 41.612, 41.613, 41.620, 41.621, 41.630, 41.631, and 42.502.

Related Requirements Three courses in a field of application, to be selected in consultation with the advisor. This requirement may be waived for students with more than one major in this department and for students obtaining secondary teaching certification in mathematics.

Recommendations Students, especially those planning graduate work in mathematics, are encouraged to select additional courses in consultation with the appropriate advisor.

Special Opportunities Undergraduate assistantships, and work study arrangements with government agencies and private firms are available.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Mathematics.

Undergraduate Program in Applied Mathematics

TRACKS Physical Sciences or Computer Science.

ADMISSION TO THE PROGRAM Requires a 2.00 cumulative grade-point average and the completion of 41.111, 41.222, and 41.223 with a grade of C or better.

Set Requirements 41.111, 41.222, 41.223, 41.310, and 41.322.

Required Options *Physical Sciences:* 41.321, 41.550, 41.551, and four additional courses in the department, approved by the advisor. *Computer Science:* 40.280, 40.281, 40.460, and four additional courses in the department, approved by the advisor.

Related Requirements Three courses in a field of application, to be selected in consultation with the advisor. This requirement may be waived for students with more than one major in this department and for students obtaining secondary teaching certification in mathematics.

Special Opportunities Undergraduate assistantships, and work study arrangements with government agencies and private firms are available.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Applied Mathematics.

Undergraduate Program in Statistics

TRACKS Mathematical Statistics or Applied Statistics.

ADMISSION TO THE PROGRAM Admission to the program in mathematical statistics requires the completion of 41.111, 41.222, 41.223 with grades of C or better. Admission to the program in applied statistics requires the completion of 41.101 and 41.102 with grades of C or better. A 2.00 cumulative grade-point average is required for admission to either program.

Set Requirements *Mathematical Statistics:* 41.111, 41.222, 41.223, 41.310, 41.322, 41.474, and 42.502. *Applied Statistics:* 41.101, 41.102, 42.202, 40.280, 41.310, 41.474, and 42.502.

Required Options *Mathematical Statistics:* two additional courses selected from 42.530, 42.531, 42.515, 42.516, 41.574, 42.510, and 42.511; three additional departmental courses. *Applied Statistics:* either 42.300, 42.518, or 42.514; four additional approved departmental courses.

Related Requirements	<i>Applied Statistics:</i> At least five approved courses in a related field, such as anthropology, psychology, sociology, economics, biology, business administration, or computer science. The five courses may be selected from more than one teaching unit.
Recommendations	Students planning graduate work in statistics should select the track in mathematical statistics.
Special Opportunities	Undergraduate assistantships and work study arrangements with government agencies and private firms are available.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Statistics.

Combined Undergraduate—Graduate Program in Computer Science

ADMISSION TO THE PROGRAM This program enables qualified undergraduates to earn, within a five-year period, both a bachelor's and a master's degree in computer science. Undergraduate majors in computer science at The American University must apply to this program before the end of the first half of the senior year. Students with a grade-point average of at least 3.20 on a 4.00 scale in computer science courses required for the B.S. degree (through the first half of the senior year), and an approved thesis or research project proposal, are eligible to apply.

Course Requirements	Students must complete (1) all of the requirements for the B.S. degree with a major in computer science, (2) six computer science courses at the 500-level or above (cannot include 40.520 or 40.521) and (3) six semester hours of master's thesis credit.
Tools	A tool of research is required.
Examinations	A comprehensive examination is required.
Thesis	The student must write a master's thesis of sufficient scope to earn six semester hours of graduate credit, or the student must complete six semester hours of an independent research project.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science and a degree of Master of Science with a major in Computer Science.

Master's Program in Computer Science

ADMISSION TO THE PROGRAM Requires an adequate undergraduate preparation or experience in computer science. Students entering the program without the appropriate background will be expected to take certain undergraduate courses as remedial work.

Course Requirements	40.520, 40.521, 40.540, three additional computer science courses at the 500-level or above, and two additional courses in computer science, mathematics, statistics, or a related field. These course selections are all subject to advance approval by the student's advisor.
Special Opportunities	Graduate assistantships and work study arrangements with government agencies and private firms available.
Tools	A tool of research is required.
Examinations	A comprehensive examination is required.
Thesis	The student must write a master's thesis of sufficient scope to earn six semester hours of graduate credit, or the student must complete six semester hours of independent research project.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Computer Science.

Master's Program in Mathematics

ADMISSION TO THE PROGRAM Requires an undergraduate degree in mathematics. Students entering the M.A. program without the appropriate background will be expected to take certain undergraduate courses as remedial work.

Course Requirements	<i>Thesis Option:</i> 24 approved graduate semester hours in mathematics and statistics plus six hours of 41.797. <i>Nonthesis Option:</i> 24 approved
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	graduate semester hours plus 6 hours of 41.700. Topic of study in 41.700 to be chosen by consultation between student and faculty member.
Special Opportunities	Graduate assistantships and work study arrangements with government agencies and private firms are available.
Tools	Proficiency is required in Russian, German, French, or computer language. Thesis and oral defense of thesis is mandatory.
Examinations	The student must take a written comprehensive examination in one of the following fields: mathematics or applied mathematics.
Thesis	In the thesis option, an oral defense of the thesis is mandatory. In the nonthesis option, an oral presentation of the research work is required.
DEGREE OBJECTIVE	Students receive a degree of Master of Arts with a major in Mathematics.

Master's Program in Statistics

TRACKS Mathematical Statistics and Applied Statistics

ADMISSION TO THE PROGRAM Students will be expected to have an adequate background in the mathematical sciences. Students entering the M.A. program without the appropriate background will be expected to take certain undergraduate courses as remedial work.

Course Requirements	While specific courses are not required, a minimum of 30 approved graduate semester hours, including a thesis or research project is required.
Special Opportunities	A student may take up to 12 semester hours as an independent research project, including work-study arrangements. Graduate assistantships are available. A student with an adequate background can complete a M.A. in two years attending class two evenings a week.
Tools	Proficiency is required in Russian, German, French, or computer language.
Examinations	The student must take a written comprehensive examination (administered in two parts) in one of the following fields: Mathematical Statistics: 42.001 Statistical Theory and Probability. Applied Statistics: 42.005 Statistical Theory and Applications.
Thesis	In the thesis option, an oral defense of thesis is mandatory. In nonthesis option, an oral presentation of the research work is required.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Statistics.

Doctoral Program in Mathematics

ADMISSION TO THE PROGRAM Two letters of recommendation are required.

Course Requirements	Minimum of 72 semester hours of approved graduate work is required, including 12 semester hours in 41.799.
Tools	Proficiency is required in two tools of research chosen from French, German, Russian, and computer language.
Examinations	A qualifying examination must be taken before completion of 24 semester hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are: 41.005 Real and Complex Variables and 41.006 Modern Algebra and Linear Algebra; and third field chosen from the following: 41.018 Numerical Analysis; 41.019 Theory of Numbers; 41.023 Stochastic Processes; 41.024 Theory of Probability; 41.026 Topology; 41.027 Applied Mathematics; 41.028 Operations Research; 41.029 Probability and Statistics; 41.030 Computer Science.
Dissertation	A dissertation directed by a full-time faculty member and an oral defense of the dissertation are required.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Mathematics.

Doctoral Program in Statistics

ADMISSION TO THE PROGRAM Two letters of recommendation are required.

Course Requirements	Minimum of 72 semester hours of approved graduate work is required, including 12 semester hours in 42.799.
Tools	Proficiency is required in two tools of research chosen from French, German, Russian, and a computer language.
Examination	A qualifying examination must be taken before completion of 24 semester hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are: 42.002 Advanced Statistical Theory (administered in two parts) and 41.024 Probability; and a third field chosen from the following: 42.028 Linear Estimation; 42.029 Multivariate Analysis; 42.030 Decision Theory; 42.020 Theory of Sampling; 41.023 Stochastic Processes.
Dissertation	A dissertation directed by a full-time faculty member and an oral defense of the dissertation are required.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Statistics.

Doctoral Program in Mathematics Education

ADMISSION TO THE PROGRAM Two letters of recommendation are required.

Course Requirements	A minimum of 30 semester hours of approved graduate work in addition to credit earned for the master's degree are required. An additional 12 semester hours of Doctoral Dissertation xx.799 are required, 6 of which must be earned through the Department of Mathematics, Statistics, and Computer Science, and 6 through the School of Education. The department and school should be consulted with respect to the specific course requirements which must be satisfied in mathematics and education.
Tools	Proficiency is required in two tools of research. One tool must be either (1) educational and psychological measurements and evaluation or (2) statistics (given by the Department of Mathematics, Statistics, and Computer Science). The second tool may be selected from French, German, Russian, and computer language.
Examinations	Four comprehensive examinations are required. The two examinations administered by the School of Education are: 21.022 Psychology of Education and 21.031 Mathematics Education. The two examinations administered by the Department of Mathematics, Statistics, and Computer Science are: 41.070 Mathematics for Mathematics Education and 41.072 Oral Examination in Mathematics.
Dissertation	The dissertation must be directed by a full-time faculty member and an oral defense of the dissertation is required.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Mathematics Education.

Courses of Instruction

COMPUTER SCIENCE

Undergraduate Courses

40.166 SOCIAL AND CULTURAL IMPLICATIONS OF COMPUTERS (3) History and applications of computing. Potential benefits and risks of computing to society are discussed. A term paper or

project is required. May be taken for the natural and mathematical sciences distribution requirement.

Prerequisite: 41.100 or two years of high school mathematics.

40.260 INTRODUCTION TO COMPUTING (4) Provides a general introduction to computing for students who wish to understand how computers work, how computers affect their lives, and how computers are used in the student's own discipline. Basic programming skills are developed by the presentation and use of one or more programming languages. This course *does not* serve as prerequisite for 40.281 or other advanced computer science courses. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.100 or three years of high school mathematics.

40.280, 40.281 INTRODUCTION TO COMPUTER SCIENCE I, II (4), (4) Rigorous introduction to computer science. Fundamental concepts of computer science and computer programming skills. Programs written in high level languages and in assembly language of a simple computer. Topics include gross-level computer organization, information representation, algorithms and their representations, problem analysis, basic data structures, details of computer organization, assemblers, loaders, and the relation between higher level languages and assembly language. Prerequisite to all higher level computer science courses. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisites:* 41.100 or three years of high school mathematics.

40.340, 40.341 PROGRAMMING, PROGRAMMING LANGUAGES, AND DATA STRUCTURES I, II (3), (3) Several high level programming languages are presented through a systematic investigation of their features and the data structures necessary to support their implementation. One or more programs written in the languages presented including some of significant size and complexity. Problem solving, programming techniques, and choice of data structures are emphasized so that the student is able to deal effectively with a variety of situations. Languages studied are chosen from among Pascal, FORTRAN, COBOL, PL/I, SNOBOL4, LISP, APL, GPSS, Algol 68, Simscript and others. 40.340 usually offered every fall and 40.341 usually offered every spring. May be taken for the natural and mathematical sciences distribution requirement. *Prerequisites:* 40.280 and 40.281.

40.390 INDEPENDENT READING COURSE IN COMPUTER SCIENCE (1-6)*

40.460 INTRODUCTION TO NUMERICAL METHODS (3) Introduction to numerical algorithms fundamental to scientific computation. Includes elementary discussion of error, solution of polynomial equations, and solution of systems of algebraic equations. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisites:* 40.281, 41.102 or 41.222.

40.490 INDEPENDENT STUDY PROJECT IN COMPUTER SCIENCE (1-6)*

Graduate and Advanced Undergraduate Courses

40.520, 40.521 GRADUATE SURVEY OF COMPUTER SCIENCE I, II (3), (3) A wide variety of programming techniques, programming languages and data structures are presented, and many programming projects are completed by each student. Intended to provide the necessary background for, and prerequisite to, many of the other graduate courses in computer science. Required of all students in the M.S. in Computer Science program. Not open to students with credit in 40.340 and 40.341. 40.520 usually offered every fall and 40.521 usually offered every spring. *Prerequisites:* graduate standing and equivalent of 40.280 and 40.281.

40.540 COMPUTER SYSTEM ORGANIZATION AND PROGRAMMING (3) Focus on a detailed investigation of the structure of a modern computing system, and alternative computer organizations are discussed so that students gain some appreciation for the range of possible design choices. An important component of the course is a substantial amount of assembly language programming. Assembly and linking and loading are presented in detail. The relation between system software and computer organization is discussed. Usually offered every fall. *Prerequisite:* 40.340 or 40.520 (or graduate standing and 40.520 concurrently).

40.541 COMPUTER ARCHITECTURE (3) Presents the essential notions of computer system design by investigating a wide range of historic, existing, and proposed computer architectures. Topics discussed include meta representation, data representation, instructions and addressing, interpretation and control, memory hierarchies, specialized computers, multiple computers, reliability, and system design evaluation. Usually offered every spring. *Prerequisite:* 40.540.

* See description under General Curriculum Information in this publication.

40.550 DISCRETE STRUCTURES (3) Selection of mathematical topics relevant to computer science: sets and relations, graphs, groups and group codes, combinatorics, formal logic, number theory, finite state machines, and methods of solving numerical problems. Usually offered every fall. *Prerequisites:* graduate standing or 40.281 and 41.102 or 41.222.

40.565 OPERATING SYSTEMS (3) Historical background; operating system functions and concepts: processes, processor allocation, memory management, virtual memory, I/O and files, protection; design and implementation. Several existing operating systems discussed and groups of students design and implement their own operating systems. Usually offered every spring. *Prerequisites:* 40.521 and 40.540 or 40.341 and 40.540.

40.566 INTRODUCTION TO COMPILERS (3) Emphasizes the techniques required to design and implement compilers. Topics include lexical analysis, syntactic analysis, and generation of efficient object code. Usually offered every spring. *Prerequisites:* 40.521 and 40.540 or 40.341 and 40.540.

40.568 ARTIFICIAL INTELLIGENCE (3) Application of computers to tasks that normally are considered to demand human intelligence: game playing, problem solving, learning, pattern recognition, understanding. Usually offered alternate falls. *Prerequisite:* 40.550.

40.570 DATA MANAGEMENT SYSTEMS (3) Presents a survey of data management system history, principles, and applications. Topics include basic concepts, storage concepts, the relational, hierarchical and network approaches, and security and integrity. Several existing data management systems are studied. Usually offered every fall. *Prerequisites:* 40.521 and 40.540 or 40.341 and 40.540.

40.582 AUTOMATA THEORY (3) Automata and their related algebraic structures, properties of regular events, properties of subclasses of regular events, decomposition of finite automata, structural and behavioral aspects of finite automata. Usually offered alternate falls. *Prerequisite:* 40.550.

40.583 FORMAL LANGUAGES (3) Definition of formal language; finite representation for language; regular, context-free, context sensitive, and type O grammars; types of automata, both deterministic and nondeterministic, including pushdown automata, stack automata, and Turing machines; properties of classes of languages; decidability results. Usually offered alternate springs. *Prerequisite:* 40.582.

40.584 COMPUTER GRAPHICS (3) Overview of display technology; cathode ray tubes (CRT), digital control of CRT's, other displays, applications, interactive devices, hard copy, graphics systems design. Graphics software: high level languages for graphics, programming interactive devices, display files, design of graphics systems, transformations in two and three dimensions, gray scales, color. Usually offered alternate springs. *Prerequisites:* 40.521 and 40.540 or 40.341 and 40.540.

40.585 THEOREM PROVING (3) The study of techniques that enable mathematical theorems to be proved by computers. Logic, formal proof schema, theorem proving by means-end analysis, semantic trees, the resolution principle, the strategy problem. Application to problem solving. Usually offered alternate springs. *Prerequisites:* 40.520 and 40.568 or 40.340 and 40.568.

40.587 COMPUTER WORKSHOP (3) Individual computer application project presented by the student. Evaluation of project, including class evaluation, is on the basis of the quality of design, its articulation, and the evaluation of the project itself. A minimum of written material includes a formal project proposal, periodic progress reports specified in the proposal, a brief survey of the purpose, plan, and goal of the project, profile of uses and users, description of the work, specifications for operation, and demonstration or illustration of its use. Usually offered alternate springs. *Prerequisites:* 40.521 and 40.540 or 40.341 and 40.540.

40.590 INDEPENDENT READING COURSE IN COMPUTER SCIENCE (1-6)*

Graduate Courses

40.690 INDEPENDENT STUDY PROJECT IN COMPUTER SCIENCE (1-6)*

40.700 SEMINAR IN COMPUTER SCIENCE (1-6) May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

40.797 MASTER'S THESIS SEMINAR IN COMPUTER SCIENCE (3-6)

* See description under General Curriculum Information in this publication.

MATHEMATICS

Undergraduate Courses

41.100 FINITE MATHEMATICS (3) Sets, real numbers, solution of equations, inequalities, probability, functions, elementary linear algebra. Applications to biology, business, and social sciences. No credit towards mathematics major. Students may not receive credit for both 41.100 and 41.110. May be taken for natural and mathematical sciences distribution requirement. Usually offered every term.

41.101 APPLIED CALCULUS I (4) Continuity, limits, differentiation, and integration. Applications to biological, social, and environmental sciences and business. Brief study of matrices and matrix operations. No credit towards a mathematics, mathematical statistics, or applied mathematics major, but together with 41.102 meets calculus requirement for applied statistics or computer science majors. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisites:* 41.100 or permission of instructor.

41.102 APPLIED CALCULUS II (3) Calculus of several variables, matrices, series, and differential equations. Applications to biological, social, and environmental sciences and business. No credit towards mathematics, mathematical statistics, or applied mathematics major, but together with 41.101 meets requirement for applied statistics or computer science majors. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.101 or 41.111.

41.105, 41.106 THE NATURE OF MATHEMATICS I, II (3), (3) Nontechnical course. Interplay of mathematics with natural, social, and physical sciences and humanities. May be taken for the natural and mathematical sciences distribution requirement.

41.109 BASIC MATHEMATICS (1–2) Course designed for those with deficiencies in mathematical background which affect ability to perform adequately in their mathematics courses. Texts chosen to facilitate the student's individual work effort. Students have the option of moving faster than the class and registering for another section later in the semester. Students may register for one or two semester hours. Sections are (1) Arithmetic, (2) Algebra, (3) Intermediate Algebra, (4) Trigonometry, and (5) Plane Geometry. The course should be taken on a pass/fail basis only. Usually offered every term.

41.110 FUNDAMENTALS OF MATHEMATICS (3) Fundamentals of sets, functions, algebra, and trigonometry intended for students planning to continue in 41.111. Students may not receive credit for both 41.110 and 41.100. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* three years of high school mathematics.

41.111 CALCULUS I (4) Real numbers; coordinate systems; functions; limits and continuity; and definite integration and applications; fundamental theorem of integral calculus. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisites:* 41.110 or four years of high school mathematics.

41.222 CALCULUS II (4) Techniques of integration; calculus of transcendental functions; infinite series; power series representations; analytic geometry. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.111.

41.223 CALCULUS III (4) Vectors; functions of several variables; partial differentiation; multiple integrals. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.222.

41.310 LINEAR ALGEBRA (3) Vector spaces, systems of linear equations, solutions by matrices, determinants, linear transformations, and algebraic forms. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring and every summer. *Prerequisite:* 41.102 or 41.222 or taken concurrently with 41.222.

41.321 DIFFERENTIAL EQUATIONS (3) First-order first-degree equations, linear equations of n th order with constant coefficients, Laplace transforms, applications of mechanics and electrical circuits, special equations of higher order, and solution in series. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every summer. *Prerequisite:* or corequisite 41.223.

41.322 CALCULUS IV (3) Point sets in several variables, partial derivatives, Lagrange multipliers, Jacobians, implicit and inverse transformation theorems, quadratic forms, vectors and line integrals, theorems of Green, Gauss, and Stokes. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 41.223.

41.390 INDEPENDENT READING COURSE IN MATHEMATICS (1-6)*

41.440 GEOMETRY (3) Selected topics in differential, projective, or non-Euclidean geometry. May be taken for the natural and mathematical sciences distribution requirement.

41.474 PROBABILITY (3) Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal and other distributions; applications. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 41.102 or 41.222.

41.480 HISTORY OF MATHEMATICS (3) Mathematics in antiquity: Egypt, Mesopotamia, and ancient Greece. Renaissance and mathematics since 1600. Historical development of geometry, algebra, and calculus. Rigorization of analysis. Non-Euclidean geometry and axiomatics. Selected topics in modern mathematics. May be taken for the natural and mathematical sciences distribution requirement.

41.490 INDEPENDENT STUDY PROJECT IN MATHEMATICS (1-6)***Graduate and Advanced Undergraduate Courses**

41.502, 41.503 FOUNDATIONS OF MATHEMATICS (3), (3) Introduction to symbolic logic, axiomatics, set theory, and transfinite numbers. Peano's axioms, Dedekind cuts, number systems, and philosophy of mathematics. Not for graduate credit in mathematics. Recommended for teachers. *Prerequisite:* junior standing or above in mathematics or computer science.

41.510 MATRIX THEORY FOR APPLICATIONS (3) Vector spaces, linear transformations, similarity, rational and classical canonical forms, unitary spaces, unitary equivalence, quadratic forms, congruence, rings of matrices, matrix representations of groups and algebras, applications to statistics, physics, and other fields. Not intended for graduate students in mathematics. Usually offered every summer. *Prerequisite:* 41.310.

41.512, 41.513 INTRODUCTION TO MODERN ALGEBRA I, II (3), (3) Groups, rings, vector spaces and modules, fields, and Galois theory. 41.512 usually offered every fall and 41.513 usually offered every spring. *Prerequisite:* 41.310 or permission of instructor.

41.515 NUMBER THEORY (3) Divisibility; fundamental theorem of arithmetic; congruences; arithmetic functions; diophantine equations; quadratic residues; sums of squares; partitions. Usually offered alternate springs. *Prerequisite:* 41.222.

41.518 LINEAR PROGRAMMING (3) Theoretical, computational, and applied areas. Topics include: convex sets, linear inequalities, extreme-point solutions, the simplex algorithm, duality problems, the transportation problem and method of solution, applications, and theory of games. *Prerequisite:* 41.310 or permission of department.

41.519 ADVANCED TOPICS IN MATHEMATICAL PROGRAMMING (3) Revised simplex algorithm, dual-simplex algorithm, integer programming, solution of large-scale systems, the decomposition algorithm, nonlinear programming, network analysis, parametric programming, and sensitivity analysis. *Prerequisite:* 41.518 or permission of department.

41.520, 41.521 INTRODUCTION TO ANALYSIS I, II (3) (3) Analysis in Euclidean and metric spaces; point sets; completeness; convergence; continuity; differentiability; integration. 41.520 usually offered every fall and 41.521 usually offered every spring. *Prerequisite:* 41.322.

41.523 ORDINARY DIFFERENTIAL EQUATIONS (3) Topics from existence theorems, Riccati equations, solutions in power series, regular and irregular singular points, two-point boundary-value problems, Sturm-Liouville theory, and orthogonal functions. *Prerequisite:* 41.321.

41.524 PARTIAL DIFFERENTIAL EQUATIONS (3) First and second order linear equations, type characteristics, reduction to normal forms, separation of variables, Poisson's formula, and Green's function. *Prerequisite:* 41.321.

41.528 DIFFERENTIABLE MANIFOLDS (3) Differentiable manifolds, vectors, tensors, and differential forms. Frobenius theorems, Riemannian geometry, and Lie groups. *Prerequisites:* 41.310 and 41.520.

41.540 TOPOLOGY (3) Topological spaces, continuity, compactness, connectedness, and metric spaces. *Prerequisite:* 41.322.

* See description under General Curriculum Information in this publication.

41.550 COMPLEX VARIABLES FOR APPLICATIONS (3) Complex variables. Cauchy's theorem and integral formulas. Residue theorem and contour integration. Conformal mapping. Fourier series, integrals, transforms, and inverse transforms. Laplace transform methods. Usually offered every fall. *Prerequisite:* 41.223.

41.551 MATHEMATICS FOR PHYSICS (3) Oscillatory systems and normal modes. Eigenvalues and diagonalization of matrices. Wave equation. Vibrating strings and membranes. Orthogonal functions. Heat equation. Laplace's equation. Green's function. Variational methods. Tensors. Usually offered every spring. *Prerequisite:* 41.321.

41.560 NUMERICAL ANALYSIS: BASIC PROBLEMS (3) Iterative solution of nonlinear equations. Special methods for polynomials. Basic theory of polynomial approximation. Usually offered alternate falls. *Prerequisites:* 41.460 and either 41.321 or 41.322.

41.561 NUMERICAL ANALYSIS: ALGEBRA (3) Norms of vectors and matrices. Numerical solution of linear systems. Matrix inversion. Computation of eigenvalues and eigenvectors. Usually offered alternate springs. *Prerequisite:* 41.560.

41.562 NUMERICAL ANALYSIS: ANALYSIS (3) Numerical quadrature and linear difference equations. Consistency, convergence, and stability. Usually offered alternate falls. *Prerequisite:* 41.560.

41.563 SELECTED TOPICS IN NUMERICAL ANALYSIS (3) Special topics are selected from such areas as partial differential equations or numerical approximation. Usually offered alternate springs. *Prerequisite:* permission of instructor.

41.574 THEORY OF PROBABILITY I (3) Measure theory, Lebesgue integral, random variables, distribution functions, generating and characteristic functions, special distributions and statistics, and limit theorems. Usually offered every fall. *Prerequisites:* 41.322 and 41.474 or permission of instructor.

41.576 MATHEMATICAL METHODS OF OPERATIONS RESEARCH (3) Short review of probability theory, Laplace transforms as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are nonexponential, inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.474 and 42.502.

41.590 INDEPENDENT READING COURSE IN MATHEMATICS (1-6)*

Graduate Courses

41.610 ADVANCED LINEAR ALGEBRA (3) Matrix theory, introduction to multi-linear algebra, tensor products, orthogonal spaces, classical groups, algebras, projective geometry, infinite dimensional spaces. *Prerequisite:* 41.512.

41.612, 41.613, 41.614 MODERN ALGEBRA I, II, III (3), (3), (3) Selected topics from group theory: isomorphism theorems, Sylow theorems, classification of groups, solvable and nilpotent groups, p-groups, direct products, free groups, and extensions. Ring theory: ideal theory in commutative rings, factorization theory, Noetherian and Artinian rings, Wedderburn-Artin theorem, Jacobson radical, and algebras. Field theory: extensions, Galois theory, Kummer theory, valuations, Dedekind fields, and algebraic number theory. *Prerequisite:* 41.512.

41.616 HOMOLOGICAL ALGEBRA (3) Homology, cohomology, homological dimension, Ext and Tor, spectral sequences, category theory. *Prerequisite:* 41.513.

41.620, 41.621 ANALYTIC FUNCTIONS I, II (3), (3) Differentiation and integration of complex-valued functions, analyticity, Cauchy's theorems. Laurent series, singularities, contour integration and residue calculus, conformal mapping, analytic continuation and Weierstrass and Mittag-Leffler's theorems. 41.620 usually offered alternate falls and 41.621 usually offered alternate springs. *Prerequisite:* 41.521.

41.624 ADVANCED TOPICS IN COMPLEX VARIABLES (3) Topics from: Conformal mapping and Riemann mapping theorem, schlicht functions and distortion theorems, Riemann surfaces and uniformization, entire functions, normal families, elliptic functions, and automorphic functions. *Prerequisite:* 41.621.

* See description under General Curriculum Information in this publication.

41.625 CALCULUS OF VARIATIONS (3) Extremization of functionals. Euler, Legendre, Weierstrass and Jacobi necessary conditions. Sufficient conditions for weak and strong extrema. Extremal fields and Hilbert's invariant integral. Isoperimetric problems and inequalities. Direct methods. Usually offered alternate springs. *Prerequisite:* 41.551.

41.626 INTEGRAL EQUATIONS (3) Fredholm equations and theorems. Neumann series, resolvent, degenerate kernels. Hilbert-Schmidt theory, symmetric kernels, eigenfunction expansions, properties and estimation of eigenvalues. Application to boundary value problems. Singular integral equations. Usually offered alternate falls. *Prerequisite:* 41.551.

41.630 MEASURE AND INTEGRATION (3) Measurability; integration and convergence theorems. L_p spaces, modes of convergence, differentiation, and introduction to probability. Usually offered alternate falls. *Prerequisite:* 41.521.

41.631 FUNCTIONAL ANALYSIS (3) Banach and Hilbert spaces; Hahn-Banach, open mapping, closed-graph, and uniform boundedness theorems; introduction to spectral theory. Usually offered alternate springs. *Prerequisite:* 41.630.

41.632 ADVANCED TOPICS IN REAL VARIABLES (3) Locally convex spaces, duality theory, operator theory, and Fourier analysis. *Prerequisite:* 41.631.

41.641, 41.642 ALGEBRAIC TOPOLOGY I, II (3), (3) (I) Covering spaces, fundamental groups, surfaces, and introduction to homology. *Prerequisites:* 41.540, 41.512. (II) Homology groups, higher homotopy groups, fixed point theorems, and manifolds. *Prerequisite:* 41.641.

41.654 PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS I (3) Second order hyperbolic equations, characteristics, Cauchy and Goursat problems, Riemann's method, and quasilinear equations. Legendre transformation, wave equation in n -dimensions, spherical means, Hadamard's method. Usually offered alternate falls. *Prerequisite:* 41.524 or 41.551.

41.655 PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS II (3) Second order elliptic, parabolic, and mixed equations, problems of Dirichlet and Neumann, Green's function, potentials of volume and surface distributions, diffusion phenomena, and Tricomi's equation. Usually offered alternate springs. *Prerequisite:* 41.654.

41.656 MATHEMATICAL THEORY OF FLUID DYNAMICS (3) Basic kinematic and dynamics concepts, incompressible fluids, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets, and free streamline problems. *Prerequisite:* 41.551.

41.657 MATHEMATICAL THEORY OF FLUID DYNAMICS II (3) Dynamics and thermodynamics of compressible fluids, subsonic, transonic and supersonic flows, Prandtl-Busemann method, hodograph method, shock waves, viscous fluids, boundary layer theory, and turbulence. *Prerequisite:* 41.656.

41.690 INDEPENDENT STUDY PROJECT IN MATHEMATICS (1-6)*

41.700 SEMINAR IN MATHEMATICS (1-6) Research in mathematics, involving individual projects. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term.

41.797 MASTER'S THESIS SEMINAR IN MATHEMATICS (3-6)

41.799 DOCTORAL DISSERTATION SEMINAR IN MATHEMATICS (3-12)

STATISTICS

Undergraduate Courses

42.202 BASIC STATISTICS (4) Classification of data, averages, dispersion, probability, frequency distributions, confidence intervals, tests of significance, nonparametric techniques, simple regression and correlation. A package of statistical computer programs is used in the analysis of various statistical techniques. Separate sections are made available for biology, business and economics, psychology and education, sociology and government majors. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.100 or permission of instructor.

42.300 BUSINESS STATISTICS (3) Estimation, inference, multiple regression, and correlation. Elementary decision theory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 42.202.

42.301 PSYCHOLOGICAL STATISTICS (3) Estimation, inference, special methods of two variable correlation, multiple regression and correlation, design of samples and experiments, contingency tables, and nonparametric techniques. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 42.202.

42.390 INDEPENDENT READING COURSE IN STATISTICS (1-6)*

42.400 MANAGERIAL STATISTICS (3) Frequency distributions; averages; dispersion; probability; making decisions under uncertainty; inferences about means; proportions, and differences; simple and multiple regression. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* 41.100 or graduate status.

42.490 INDEPENDENT STUDY PROJECT IN STATISTICS (1-6)*

Graduate and Advanced Undergraduate Courses

42.502 INTRODUCTION TO MATHEMATICAL STATISTICS (3) Probability, probability distributions, sampling, sampling distributions, introduction to the theory of point estimation, and statistical inference including confidence intervals and hypothesis testing. (Not open for credit to graduate students in mathematics or statistics.) Usually offered every fall. *Prerequisites:* 41.102 or equivalent; 42.202 and 41.474 are recommended.

42.510, 42.511 THEORY OF SAMPLING I, II (3), (3) Mathematical development of basic principles of survey design including methods for determining expected value, bias, variance and mean square error; simple random, systematic, stratified, cluster, multistage, and double sampling; unbiased, ratio, regression, and composite estimation; optimum allocation of resources; controlled and other non-simple methods of selection; introduction to measurement error; comparison of alternative designs. 42.510 usually offered alternate falls and 42.511 usually offered alternate springs. *Prerequisite:* 42.502 or equivalent.

42.514 METHODOLOGY: GENERAL (3) Averages, dispersion, probability, sampling, approach to normality; simple and multiple regression; tests and confidence intervals for means, proportions, differences, regression coefficients; nonparametric statistics; analysis of variance. Usually offered every term. *Prerequisite:* 42.202 or equivalent.

42.515 REGRESSION (3) Simple and multiple regression; least squares; curve fitting; graphic techniques; tests and confidence intervals for regression coefficients. *Prerequisite:* 42.514 or equivalent.

42.516 DESIGN OF EXPERIMENTS (3) Designing and analyzing results of balanced experiments; simple analysis of variance; components of variance; analysis of covariance; related topics. Usually offered every spring. *Prerequisite:* 42.514 or equivalent.

42.517 SPECIAL TOPICS IN STATISTICAL METHODOLOGY (3) Alternating topics in statistics treated from applied viewpoint. Subjects considered; sampling, multivariate techniques, factor analysis, etc. *Prerequisite:* 42.514 or equivalent.

42.518 PSYCHOLOGICAL STATISTICS (3) Methods appropriate for analyzing data of psychological research; estimation; testing; regression; analysis of variance and covariance; interval estimates and significance tests; related topics. *Prerequisites:* 42.202 or 42.514.

42.519 NONPARAMETRIC STATISTICS (3) Application of nonparametric techniques in the analysis of social science data with emphasis on tests appropriate for data having interval, nominal, and ordinal scales. *Prerequisite:* 42.514 or permission of instructor.

42.526, 42.527 MATHEMATICAL STATISTICS LABORATORY I, II (1), (1) Topics covered are extensions and applications of subjects studied concurrently in 42.530 and 42.531. 42.526 usually offered every fall; 42.527 usually offered every spring. *Corequisite:* 42.530 and 42.531.

42.530, 42.531 MATHEMATICAL STATISTICS I, II (3), (3) Distribution of random variables and functions of random variables, generating functions, order statistics, point estimation, maximum likelihood, confidence intervals, tests of hypotheses (Neyman-Pearson, likelihood ratio, etc.), linear

regression, and analysis of variance. Usually offered every fall and every spring. *Prerequisite:* 41.322, 42.502 or equivalent, 41.310.

42.584 INTRODUCTION TO STOCHASTIC PROCESSES (3) Introduction to random walks, Markov chains and processes, Poisson processes, recurrent events, birth and death processes, and related topics. Usually offered every spring. *Prerequisite:* 41.574 or equivalent.

42.590 INDEPENDENT READING COURSE IN STATISTICS (1-6)*

Graduate Courses

42.600 ADVANCED MATHEMATICAL STATISTICS I (3) Theory of estimation, properties of estimators, large sample properties and techniques, and applications. Usually offered every fall. *Prerequisites:* 42.531, 41.574 (may be concurrent).

42.601 ADVANCED MATHEMATICAL STATISTICS II (3) Mathematical foundations of statistical theory, special topics in mathematical statistics. Usually offered every spring. *Prerequisite:* 42.600.

42.604, 42.605 STATISTICAL DECISION THEORY I, II (3), (3) Convex sets and functions; minimax theorem; statistical games; utility and principles of choice; strategies; complete classes; Bayes procedures; principles of invariance, sequential procedures; related topics. 42.604 usually offered alternate falls and 42.605 offered alternate springs. *Prerequisite:* 42.600 (may be taken concurrently).

42.610 STATISTICAL INFERENCE I (3) Development and applications of testing theory. *Prerequisite:* 42.600.

42.611 STATISTICAL INFERENCE II (3) Methods of statistical inference, advanced topics in estimation, and tests of hypotheses. *Prerequisite:* 42.610.

42.620, 42.621 MULTIVARIATE ANALYSIS I, II (3), (3) Multivariate normal distribution, Hotelling's T; Wilks' likelihood ratio criterion; other test statistics; classification problems; principal components; canonical correlation; general multivariate regression and experimental designs; related topics. 42.620 usually offered alternate falls and 42.621 usually offered alternate springs. *Prerequisites:* 41.510; 42.600 (may be taken concurrently).

42.670, 42.671 LINEAR ESTIMATION I, II (3), (3) General linear hypothesis; least squares estimation; Gauss-Markov theorem; regression; analysis of variance; multiple comparisons; analysis of covariance; factorial designs; randomized blocks; other experimental designs; effects of departures from assumptions. 42.670 usually offered alternate falls and 42.671 offered alternate springs. *Prerequisites:* 41.510, 42.600 (may be taken concurrently).

42.674, 42.675 ADVANCED PROBABILITY AND STOCHASTIC PROCESSES I, II (3), (3) Limit theorems; infinitely divisible distributions; conditioning; martingales; Markov processes, normal processes, stationary processes, and related topics. 42.674 usually offered alternate falls and 42.675 usually offered alternate springs. *Prerequisites:* 41.574, 42.584.

42.690 INDEPENDENT STUDY PROJECT IN STATISTICS (1-6)*

42.797 MASTER'S THESIS SEMINAR IN STATISTICS (3-6)

42.799 DOCTORAL DISSERTATION SEMINAR IN STATISTICS (3-12)

Department of Performing Arts: Dance, Music, and Theatre

CHAIRMAN Charles F. Crowder

FULL-TIME FACULTY

Professor C. Crowder, E. S. Hayes (Emeritus), A. Mandel, V. Mason, J. L. McLain (Emeritus), N. W. Prevots, G. C. Schuetze Jr., G. Smith, E. Vrenios.

Associate Professor K. Baker, E. Monk-Daley, H. Voss.

Assistant Professor C. B. Andrews, M. Andrews, B. Baronovic, J. Hindman, H. Mardirosian, V. Morris, H. Patrick, J. Sapayevski.

* See description under General Curriculum Information in this publication.

The Department of Performing Arts has complete major programs in each of its arts disciplines and has developed a unique, highly individualized interdisciplinary curriculum. The interdisciplinary program is aimed at providing course work and counseling in five areas of development: performing technique/craft, the building of creative maturation, theory and history, the arts in the social structure, and teaching the arts. The interdisciplinary thrust of the program provides the student with conceptual awareness not only in the major area but also in the relationships of that field to artistic components in the other arts.

THE AMERICAN UNIVERSITY ACADEMY OF PERFORMING ARTS The summer program, organized and directed by the Department of Performing Arts, has the continuing focus of high quality professional training and performance opportunities for high school and college students and artists in dance, music, and theatre. Well-known artists and professional companies are in residence for two four-week sessions each summer.

Special Programs: Academy for the Performing Arts

TRACKS Dance, Music, Theatre, and Creative Writing

ADMISSION TO THE PROGRAM This special four-week summer institute program draws students from all parts of the country to study performing arts in intensive workshop formats under the direct tutelage of distinguished professional performing artists. The program is open to advanced high school students as well as undergraduate and graduate level students, with students grouped according to ability level in the technique classes.

Enrollment in all programs closes early. Students are accepted in order of application date. Further information and application forms may be obtained by contacting the Department of Performing Arts: Dance, Music, and Theatre.

Required Options With advice from the faculty, students enroll in various workshops to meet their interests and ability levels: 48.480, 48.481, 48.482, 48.584, 48.680, 48.681, and 48.682.

Special Opportunities Various opportunities are made available to perform and to observe professional performance both on campus and in Washington, D.C.

DEGREE OBJECTIVE This program does not lead to a degree. Students may earn up to four semester hours of undergraduate or graduate credit in each four-week session.

Undergraduate Program in Dance

ADMISSION TO THE PROGRAM Requires some previous dance training and demonstrated talent in the dance field during a one-year probationary period.

Set Requirements 67.200, 67.325, 67.411, 67.412, 67.413, 67.410, 67.397, and two four-week sessions in the summer Academy of Performing Arts (on campus).

Required Options (1) Either 67.102, 67.202, and 67.302 or 67.104, 67.204, and 67.304. (2) The remainder of departmental course requirements is determined on the basis of close counseling with the advisor. Course requirements may be adjusted to meet the individual talents and work of each student.

Related Requirements Those students preparing for teacher certification must take 21.300, 21.320, and 21.446.

Recommendations Consult the department for more complete details.

Special Opportunities Junior and senior honors and internships for selected students.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Performing Arts: Dance.

Undergraduate Program in Music: Bachelor of Arts

ADMISSION TO THE PROGRAM Musical ability in the areas of performance and theory must be demonstrated during a first-year probationary period.

Set Requirements (1) 67.120, 67.121, 67.124, 67.125, 67.224, 67.225, 67.230 67.231, 67.324, and 67.325, any of which may be waived by examination;

(2) four semesters of applied music (68.121, 68.122); (3) two semesters of 67.142, 67.143, 67.144, or 67.146; (4) and two semesters in any faculty-conducted ensemble.

Required Options

Nine semester hours of electives in music.

Recommendations

Students intending to pursue graduate work in music are advised to fulfill the more extensive requirements of the B.Mus. or B.M.Ed. degrees.

Special Opportunities

Honors work in the junior and senior year.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Music.

Undergraduate Program in Music: Bachelor of Music

TRACKS Composition, Music History, Performance, Theory. (Included under Performance are conducting and accompanying, as well as vocal and instrumental performance.)

ADMISSION TO THE PROGRAM Musical ability in the areas of performance and theory must be demonstrated during a first-year probationary period.

Set

Requirements

(1) 67.120, 67.121, 67.124, 67.125, 67.128, 67.129, 67.224, 67.225, 67.228 through 67.231, 67.324 through 67.328, 67.335, and 67.336, any of which may be waived by examination; (2) half-recital; (3) registration in major applied music area in semester recital is given; (4) and participation in one faculty-conducted ensemble for each semester of full-time attendance here (or the equivalent for part-time attendance), one half or more of this participation being in 67.142, 67.143, 67.144, or 67.146.

Required Options

(1) *Composition Track*: 67.337, 67.338, and one of the following: 67.524, 67.734, 67.735, or 67.737. (2) *Music History Track*: three of the following: 67.520, 67.531 through 67.536, 67.731, 67.732, and 67.736. (3) *Performance Track*: 67.543, 67.544, and 68.434; full (senior) recital as well as half (junior) recital. (4) *Theory Track*: three of the following: 67.337, 67.524, 67.734, and 67.735.

Recommendations

Registration in major applied area each semester. Reading knowledge of German for music history specialists. Study of French, German, and Italian diction for voice and accompanying specialists.

Special Opportunities

Honors work in the junior and senior years, including 68.334 (full junior recital).

DEGREE OBJECTIVE Students receive a degree of Bachelor of Music with a major in music.

Undergraduate Program in Music: Bachelor of Music Education

TRACKS Vocal Music Education, Instrumental Music Education.

ADMISSION TO THE PROGRAM Vocal music education specialists must have as their major instrument either voice, keyboard, or guitar, and either voice or keyboard as their minor instrument (voice for guitar majors). Instrumental music education specialists must play an orchestral instrument at a major level upon admission or play their senior half-recital on an orchestral instrument. Musical ability in the areas of performance and theory must be demonstrated during a first-year probationary period.

Set

Requirements

Same as for the Bachelor of Music degree, plus 21.300, 21.320, and 67.343.

Required Options

(1) *Vocal Music Education Track*: one of the following: 21.444 and 67.342; 21.445 and 67.343; or 21.446, 67.342, and 67.343. (2) *Instrumental Music Education Track*: 67.141 (all four areas: brass, woodwinds, strings, and percussion), 67.341 and 21.446.

Recommendations

Registration in major applied music area each semester, with the possible exception of the semester devoted to student teaching. Present senior half-recital in the semester prior to student teaching.

Special Opportunities Honors work in the junior and senior years.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Music Education with a major in Music Education.

Undergraduate Program in Theatre

ADMISSION TO THE PROGRAM Requires some previous theatre experience and demonstrated talent in the theatre field during a one-year probationary period.

Set Requirements 67.250, 67.251, 67.260, 67.352, 67.365, 67.366, 67.397, and two four-week sessions in the summer Academy of Performing Arts (on campus).

Required Options The remainder of departmental course requirements are determined on the basis of close counsel with the advisor. Course requirements may be adjusted to meet the individual talents and work of each student.

Related Requirements Those students preparing for teacher certification must take: 21.300, 21.320, and 21.446.

Recommendations Consult the department for more complete details.

Special Opportunities Junior and senior honors and internships for selected students.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Performing Arts: Theatre.

Master's Program in Dance

ADMISSION TO THE PROGRAM Requires a bachelor's degree with 8–10 courses in undergraduate dance, theatre, or music, one-half of which must be in dance or its equivalent. Equivalent training is understood to be four to six years experience in a professional company or organization. Students entering the program with this background will be asked for an interview, at which time any deficiencies will be determined. Two letters of recommendation are required. "Provisional" admission may be granted and is removed at the completion of 12 semester hours work with a grade-point average of 3.25 on a 4.00 scale.

Course Requirements 67.602 or 67.604, 67.600, 67.613, and 67.610; two courses from multiprogram or arts management listings at 500-level or above; one four-week session in the summer Academy of Performing Arts (on campus); and the remainder of courses from the performing arts listings as determined by the student with the advisor. The M.A. degree in dance is a 36 semester hour degree. Students are urged to structure their degree program to develop individual talent and may do so in close counsel with the advisor.

Examinations A four-hour written comprehensive examination will be given covering three areas as determined by the student and advisor.

Thesis 67.797 or 67.798 is required. The nonthesis option may be a performance in the area of the student's specialization, e.g., choreography or dance performance. The student's thesis proposal or nonthesis proposal must be approved by the advisor and the department Graduate Studies Committee before work begins.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Performing Arts: Dance.

Master's Programs in Music and Music Education

TRACKS Composition, Music Education—Kodaly Emphasis, Musicology, Performance, and Theory. Included under Performance are conducting and accompanying, as well as vocal and instrumental performance.)

ADMISSION TO THE PROGRAMS Composition specialists must submit three or more original works of differing types. Two letters of recommendation are required. Performance specialists must audition, either in person or by tape recording. Music Education majors must have nine semester

hours in education and one semester of teaching experience. Depending on prior experience, a student may be admitted with deficiencies, that must be removed by appropriate course work or by waiver examination.

Course Requirements

(1) *Composition Track*: 67.524, 67.737, and electives to complete 24 semester hours of course work. (2) *Music Education Major*: 67.540, 67.541, and 67.735; any two graduate-level music history and literature courses (one, if Kodaly emphasis); and electives to complete 24 semester hours of course work (15, if Kodaly emphasis). (3) *Musicology Track*: 67.536; four or more of the following: (graduate-level music history and literature courses) 67.520, 67.531 through 67.535, 67.731, 67.732, and 67.736; and electives to complete 24 semester hours of course work. (4) *Performance Track*: 67.536, 67.543, 67.544; 4–6 semester hours of applied music at the graduate level (67.527 for conducting specialists); and electives to complete 24 semester hours of course work. (5) *Theory Track*: 67.524 (fugue), 67.536; three or more of the following: 67.524 (other than fugue), 67.734, 67.735, and 67.737; and electives to complete 24 semester hours of course work.

All Tracks Electives may not include more than four semester hours of 67.545; more than four semester hours of graduate-level applied music (six for performance majors); or more than six semester hours of graduate-level nonmusic courses (such courses must be approved in advance by the department chairman).

Special Opportunities

Students accepted into the program in Music Education—Kodaly Emphasis normally complete their Kodaly training (equivalent to 15 of the required 30 semester hours) at the Kodaly Institute, either in Wellesley, Massachusetts, or in Kecskemet, Hungary, before commencing graduate-level course work at The American University. This consists of one academic year at either location, preceded by a four-week summer course in Wellesley; or three summers of study at the institute. Students in this program are encouraged to apply for the American University graduate teaching assistantship in ear training and sight reading.

Information regarding this and other graduate assistantships in music is available from the department.

Advancement to Candidacy

Upon the completion of 12–18 semester hours (with a grade-point average of 3.00 or higher), removal of undergraduate deficiencies (if any), and with the written recommendation of the student's faculty advisor, the student is expected to request and submit the appropriate form for advancement to candidacy.

Tools

Proficiency in German, French, or statistics (for music education majors), or an approved substitute, is required of students writing a thesis.

Examinations

One comprehensive examination in music history and theory and a second examination in the student's field of specialization must be taken during or after the semester in which the required course work is completed and prior to registration for 67.749, 67.797, or 67.798. The second examination for performance specialists is the Master's Recital.

Thesis

All tracks except Music Education—Kodaly Emphasis: six semester hours of thesis or an approved substitute are required. (1) *Composition Track*: 67.798 (a large composition). (2) *Music Education Major*: 67.749, 67.797, or 67.798 (no requirement with Kodaly emphasis). (3) *Musicology Track*: 67.797. (4) *Performance Track*: 67.749 or 67.797. (5) *Theory Track*: 67.797.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Music or Music Education.

Master's Program in Theatre

ADMISSION TO THE PROGRAM Requires a bachelor's degree (with 8–10 courses in undergradu-

ate dance, theatre, or music, one-half of which must be in theatre) or its equivalent. Equivalent training is understood to be four to six years experience in a professional company or organization. Students entering the program with this background will be asked for an interview at which time any deficiencies will be determined. Two letters of recommendation are required. Provisional admission may be granted and is removed at the completion of 12 semester hours work with a grade-point average of 3.25 on a 4.00 scale.

Course Requirements 67.565, 67.665, 67.666, and 67.650; two courses from multiprogram or arts management listings; two four-week sessions in the summer Academy of Performing Arts (on campus); and the remainder of courses from performing arts listings as determined by student with advisor. The M.A. degree in theatre is a 36 semester hour degree. Students are urged to structure their degree program so as to develop individual talent and may do so in close counsel with the advisor.

Examination A four-hour comprehensive examination will be given covering three areas as determined by the student and advisor.

Thesis 67.797 or 67.798 is required. The nonthesis option may be a performance in the area of the student's specialization, e.g., directing, acting. The student's thesis proposal or nonthesis proposal must be approved by the advisor and the department Graduate Studies Committee before work begins.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Performing Arts: Theatre.

Master's Program in Arts Management

ADMISSION TO THE PROGRAM Requires a bachelor's degree (with 8–10 courses in undergraduate theatre, dance, or music, one-third of which must be in advanced work) or its equivalent. Equivalent training is understood to be four to six years experience in a professional company or organization. Students entering the program with this background will be asked for an interview at which time any deficiencies will be determined. Two letters of recommendation are required. Provisional admission may be granted and is removed at the completion of 12 semester hours work with a grade-point average of 3.25 on a 4.00 scale.

Course Requirements (1) 67.570, 67.571, 67.572, 67.573, and Creative Theories and Criticism; (2) Two electives in nonmanagerial arts-related topics; and (3) the remainder from courses in business administration, public relations, or public administration. The M.A. in arts management is a 45 semester hour degree. The course requirements in the Department of Performing Arts (above) are flexible depending on the candidate's prior training and experience.

Examination A four-hour comprehensive examination will be given covering three areas: arts management, public relations, and art area of specialization.

Thesis 67.797 is required.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Performing Arts: Arts Management.

Courses of Instruction

MULTIPROGRAM COURSES

Undergraduate Courses

67.181 STAGE MAKE-UP (1) Introduction to stage make-up. Basics of stage make-up; make-up material, make-up lists, color charts, facial anatomy, and corrective make-up. Usually offered every spring.

67.385 MUSIC FOR DANCE AND THEATRE (3) Development of an awareness of rhythms and understanding of basic elements of time; application to dance composition and accompaniment.

67.390 INDEPENDENT READING COURSE IN PERFORMING ARTS (1-6)*

67.397 SELECTED TOPICS: SEMESTER THEME PROJECT (3) Open to students of any discipline seeking innovative approach for investigation of the arts in context of social, economic, and political milieu of selected periods of history, e.g. America in the 1950s and 1960s. Germany between the Wars, etc. Historical period for investigation changed each semester and major departmental stage production selected from works of the period. Meets jointly with 67.697. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every fall and every spring.

67.398 DEPARTMENTAL HONORS, JUNIOR YEAR (1-6) May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.399 DEPARTMENTAL HONORS, JUNIOR YEAR (1-6) May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.480 EXPLORATIONS OF ARTISTIC ELEMENTS (1) Explorations of concepts of space, light, color, movement and sound in their elemental interactions as artistic/projective factors. Meets jointly with 67.680. Usually offered every fall. *Prerequisite:* permission of instructor.

67.490 INDEPENDENT STUDY PROJECT IN PERFORMING ARTS (1-6)*

67.491 PERFORMING ARTS: INTERNSHIP (1-6) Usually offered every fall and every spring.

67.498, 67.499 DEPARTMENTAL HONORS, SENIOR YEAR (1-6), (1-6) May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

Graduate and Advanced Undergraduate Courses

67.586 THE COMMUNITY AND THE ARTS (3) Designed for student performing in places other than the concert hall. Students study community situations, community groups, community programs, and nature of the community performance situation. Usually offered every spring.

67.590 INDEPENDENT READING COURSE IN PERFORMING ARTS (1-6)***Graduate Courses**

67.680 EXPLORATIONS OF ARTISTIC ELEMENTS (3) Explorations of concepts of space, light, color, movement, and sound in their elemental interactions as artistic/projective factors. Meets jointly with 67.480. Usually offered every fall. *Prerequisite:* permission of instructor.

67.682 RESEARCH SEMINAR IN PERFORMING ARTS (3) Study and practice in methods of research and writing. Research problems vary from semester to semester.

67.690 INDEPENDENT STUDY PROJECT IN PERFORMING ARTS (1-6)*

67.691 PERFORMING ARTS: INTERNSHIP (1-6) Usually offered every fall and every spring.

67.697 SELECTED TOPICS: SEMESTER THEME PROJECT (3) Open to students of any discipline seeking innovative approach for investigation of the arts in context of social, economic, and political milieu of selected periods of history, e.g. America in the 1950s and 1960s; Germany between the Wars, etc. Historical period for investigation changed each semester and major departmental stage production selected from works of the period. Meets jointly with 67.397. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.797 MASTER'S THESIS SEMINAR (1-6) Usually offered every term.

67.798 NONTHESIS OPTION SEMINAR (3-6) Usually offered every term.

DANCE**Undergraduate Courses**

67.100 INTRODUCTION TO PERFORMING ARTS: DANCE (3) Designed for the student in any discipline wishing acquaintance with dance as art form (ballet and modern). No previous knowledge of dance is required. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

* See description under General Curriculum Information in this publication.

67.102 MODERN DANCE I (2) Development of the ability to communicate through movement. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every fall and every spring.

67.104 BEGINNING BALLET (2) Development of technical skills in classical ballet vocabulary. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring.

67.200 METHODS OF TEACHING DANCE (2) Development of skills, techniques, and methods of teaching dance.

67.202 MODERN DANCE II (2) Continuation of 67.102. Section for majors and nonmajors. May be repeated for credit within the same term; topic must be different. Usually offered every fall and every spring. *Prerequisite:* 67.102 or permission of instructor.

67.204 INTERMEDIATE BALLET (2) Development of technical skills and performance ability in classical ballet vocabulary. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring. *Prerequisite:* beginning ballet or permission of instructor.

67.302 MODERN DANCE III (2) Continuation of 67.202. Meets jointly with 67.602. May be repeated for credit within the same term; topic must be different. Usually offered every fall and every spring. *Prerequisite:* 67.202 or permission of instructor.

67.305 HISTORY AND PHILOSOPHY OF DANCE (3) Understanding and appreciation of the contribution of dance to cultural development of mankind. Meets jointly with 67.605. May be taken for the arts and humanities distribution requirement. Usually offered every fall and every spring.

67.400 ADVANCED METHODS OF TEACHING DANCE (3) Understanding value of dance education and development of approaches to teaching dance at various age levels. Meets jointly with 67.600. Usually offered every spring.

67.404 ADVANCED BALLET (2) Provides advanced ballet exercises and movement sequences to increase technical skill and personal expression. Meets jointly with 67.604. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring. *Prerequisite:* 67.204 or permission of instructor.

67.410 WORKSHOP IN DANCE PRODUCTION (3) Development of techniques and provision of experience in various phases of dance production. Repertory and improvisation. Meets jointly with 67.610. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.411 COMPOSITION OF DANCE I (3) Discovery of a rich movement vocabulary and techniques of choreography. Meets jointly with 67.611. Usually offered every fall. *Prerequisite:* permission of instructor.

67.412 COMPOSITION OF DANCE II (3) Continuation of 67.411. Meets jointly with 67.612. Usually offered every spring. *Prerequisite:* 67.411 or permission of instructor.

67.413 COMPOSITION OF DANCE III (3) Continuation of 67.412. Meets jointly with 67.613. Usually offered every fall. *Prerequisite:* 67.412 or permission of instructor.

Graduate and Advanced Undergraduate Courses

67.506 DYNAMIC ALIGNMENT AND PRINCIPLES OF MOVEMENT (3) Study of the human body in motion with particular attention to the individual. Usually offered every spring. *Prerequisite:* permission of instructor.

67.507 EFFORT/SHAPE (3) Usually offered every fall.

67.508 LABANOTATION (3) Study of recording movement through a system of symbols developed by Rudolph von Laban. *Prerequisite:* permission of instructor.

Graduate Courses

67.600 ADVANCED METHODS OF TEACHING DANCE (3) Understanding value of dance education and development of approaches to teaching dance at various age levels. Meets jointly with 67.400. Usually offered every spring.

67.602 MODERN DANCE III (3) Continuation of 67.202. Meets jointly with 67.302. May be repeated for credit within the same term; topic must be different. Usually offered every fall and every spring. *Prerequisite:* 67.202 or permission of instructor.

67.604 ADVANCED BALLET (3) Provides advanced ballet exercises and movement sequences to increase technical skill and personal expression. Meets jointly with 67.404. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.

67.605 HISTORY AND PHILOSOPHY OF DANCE (3) Understanding and appreciation of contribution of dance to cultural development of mankind. Meets jointly with 67.305. Usually offered every fall and every spring.

67.610 WORKSHOP IN DANCE PRODUCTION (3) Development of techniques and the provision of experience in various phases of dance production (repertory and improvisation). Meets jointly with 67.410. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.

67.611 COMPOSITION OF DANCE I (3) Discovery of a rich movement vocabulary and techniques of choreography. Meets jointly with 67.411. Usually offered every fall. *Prerequisite:* permission of instructor.

67.612 COMPOSITION OF DANCE II (3) Continuation of 67.611. Meets jointly with 67.412. Usually offered every spring. *Prerequisite:* permission of instructor.

67.613 COMPOSITION OF DANCE III (3) Continuation of 67.612. Meets jointly with 67.413. Usually offered every fall. *Prerequisite:* 67.612 or permission of instructor.

MUSIC

Undergraduate Courses

67.120 THE LANGUAGE AND LITERATURE OF MUSIC I (3) A fundamental introduction to music aimed at increasing the musical awareness of any university student who wishes to be acquainted with standard concert pieces from all periods and performing styles. The course assumes no music theory or performing experience, but the ability to read music is helpful. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

67.121 THE LANGUAGE AND LITERATURE OF MUSIC II (3) A course designed to investigate the music of less well known composers and forms as well as early music and twentieth century music. A course aimed at expanding the knowledge of music beyond that of the standard concert repertoire. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

67.122 THE EVOLUTION OF JAZZ AND ROCK (3) Cultural sources and growth of divergent stylistic characteristics of jazz and rock through past one hundred years. May be taken for the arts and humanities distribution requirement.

67.123 SELECTED TOPICS IN MUSIC (3) Study of preselected area such as orchestral, chamber, opera, American, folk, and twentieth century music, etc. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every fall and every spring.

67.124 MUSIC THEORY I: BASIC HARMONY AND ANALYSIS (3) The triad and seventh chords with their inversions, harmonic function and progression, cadences, four-part harmonization, simple modulation using secondary dominants, and pivot chords. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

67.125 MUSIC THEORY II: CONTINUING HARMONY (3) Classical harmonic structure including chromatically altered chords. Consideration of form by analysis and composition. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 67.124.

67.126 MUSIC THEORY FOR NONMAJORS (3) A study of rhythm, modes, scales, intervals, chords, and basic musical forms. May be taken for the arts and humanities distribution requirement. Usually offered every term.

67.128 MUSIC: EAR TRAINING AND SIGHT READING I (1) Aural recognition of all intervals within an octave, triads in root position, major and all forms of minor scales; elementary rhythmic and melodic dictation. Sight singing of simple diatonic melodies in treble and bass clef using solfege. Usually offered every fall.

- 67.129 MUSIC: EAR TRAINING AND SIGHT READING II (1)** Aural recognition of all intervals within a major tenth, triads and inversions, seventh chords and inversions, modes, simple chord progressions in root position; continuing rhythmic and melodic dictation and sight reading with more complex patterns. *Prerequisite:* 67.129.
- 67.133 CLASS GUITAR I (1)** Beginning study of classic guitar in preparation for private study. Usually offered every term.
- 67.134 CLASS GUITAR II (1)** Continuation of Class Guitar I. Usually offered every term. *Prerequisite:* 67.133 or audition.
- 67.135 CLASS PIANO I (1)** Beginning piano study directed toward satisfaction of department's minimal piano requirements. Usually offered every term.
- 67.136 CLASS PIANO II (1)** Continuation of basic piano skills, begun in 67.135, necessary for entrance into 67.312 and private piano study. Usually offered every term. *Prerequisite:* 67.135.
- 67.137 CLASS VOICE I (1)** Beginning voice study. Usually offered every fall and every spring.
- 67.138 CLASS VOICE II (1)** Application of basic principles of correct use of singing voice to the study of good song literature. Usually offered every fall and every spring. *Prerequisite:* 67.137.
- 67.141 MUSIC: CLASS INSTRUMENTAL STUDY (1)** Beginning study of an announced area (e.g. brass, woodwinds, strings, or percussion) and preselected instrument within that area. Fundamentals of playing, principles of pedagogy, and methods and materials. May be repeated for credit on another instrument. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* permission of instructor.
- 67.142 UNIVERSITY CHORALE (1)** Prepares and presents major works of choral literature. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* audition.
- 67.143 UNIVERSITY SINGERS (2)** Small, highly select, traveling choral ensemble which presents both sacred and secular programs. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* audition.
- 67.144 UNIVERSITY ORCHESTRA (1)** Concerts, sight reading, and study of selected compositions. Open to all students, faculty, and staff. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring. *Prerequisite:* permission of instructor.
- 67.145 INSTRUMENTAL ENSEMBLES (1)** String, mixed, and wind ensembles, and jazz workshop. Open to students, faculty, and staff. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* permission of instructor.
- 67.146 SYMPHONIC WIND ENSEMBLE (1)** Symphonic band which presents several concerts during the year. Tour is occasionally included in the schedule. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* audition and permission of instructor.
- 67.224 MUSIC THEORY III: MODAL COUNTERPOINT (3)** Investigation of monodic and contrapuntal writing from Gregorian chant through Palestrina by analysis and composition. May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* 67.125.
- 67.225 MUSIC THEORY IV: COUNTERPOINT /FUGUE (3)** Contrapuntal writing and analysis of the invention, chorale-prelude, fugue, and other imitative forms. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 67.224.
- 67.228 MUSIC: EAR TRAINING AND SIGHT READING III (1)** Aural recognition of all intervals within two octaves, chord progressions in root position and inversions; continuation of sight reading with more complicated patterns and one-part modulation melodic dictation. Sight reading of melodies with accidentals and modulation to closely related keys. Usually offered every fall. *Prerequisite:* 67.129.
- 67.229 MUSIC: EAR TRAINING AND SIGHT READING IV (1)** Aural recognition of all intervals, chords, and chord progressions (including four-part harmony); sight reading of complex rhythmic patterns; two-part diatonic dictation, and one-part atonal melodic dictation. Sight reading involving modulation to distant keys. Usually offered every spring. *Prerequisite:* 67.228.
- 67.230 HISTORY OF MUSIC I (3)** Music in Western civilization from ancient times to seventeenth century, including brief survey of primitive and oriental music. Illustrated with slides and recordings.

May be taken for the arts and humanities distribution requirement. Usually offered every fall and every summer. *Prerequisite*: one year (preferably two) of music theory or permission of instructor.

67.231 HISTORY OF MUSIC II (3) Music in Western civilization from eighteenth century to present. Illustrated with slides and recordings. May be taken for the arts and humanities distribution requirement. Usually offered every spring and every summer. *Prerequisite*: 67.230 or permission of instructor.

67.324 MUSIC THEORY V: ANALYSIS/ADVANCED HARMONIC FORMS (3) Music from the late classic and romantic periods examined through analysis and composition. Usually offered every fall. *Prerequisite*: 67.225.

67.325 MUSIC THEORY VI: THE TWENTIETH CENTURY (3) Diverse styles and theoretical attitudes of the twentieth century examined through analysis and composition. Usually offered every spring. *Prerequisite*: 67.324.

67.326 ORCHESTRATION (2) Scoring for various chamber ensembles and full orchestra. Analysis of orchestration practice of composers from classic era to present. Usually offered every fall. *Prerequisite*: 67.225.

67.327 CONDUCTING I (2) Practical study of basic conducting technique; emphasis on choral conducting. Usually offered every fall. *Prerequisite*: 67.225 or permission of instructor.

67.328 CONDUCTING II (2) Orchestral and band conducting; score reading and interpretation. Usually offered every spring. *Prerequisite*: 67.327.

67.335 KEYBOARD SKILLS I (1) Beginning piano through free improvisation with the use of intervals, scales, and simple chords; harmonization of melodies, figured bass, transposition, and (some) modulation. Usually offered every fall. *Prerequisite*: 67.135 or equivalent piano training.

67.336 KEYBOARD SKILLS II (1) Continuation of 67.335 in harmonization of melodies, figured bass, and modulations. Work includes open and closed score reading and the extension of traditional diatonic harmony with chromaticism. Usually offered every spring. *Prerequisite*: 67.335 or permission of instructor.

67.337 MUSIC COMPOSITION I (3) Individually supervised practice in writing short compositions in specified small forms. Usually offered every term. *Prerequisite*: 67.225.

67.338 MUSIC COMPOSITION II (3) Continuation of 67.337; assignments adapted to individual needs and talents of students. Usually offered every term. *Prerequisite*: 67.337.

67.340 MUSIC FOR ELEMENTARY SCHOOL TEACHERS (3) Technical background and methods of presentation for elementary classroom teacher to use in teaching music. Primarily for elementary education majors; students majoring in music may not include this course as credit toward degree.

67.341 INSTRUMENTAL MUSIC IN THE ELEMENTARY AND SECONDARY SCHOOL (3) Practical application of theoretical concepts in planning and presentation of instrumental music. Examination and development of materials, classroom management, and control. Observation trips to area schools.

67.342 GENERAL MUSIC IN THE ELEMENTARY SCHOOL (3) Study and development of materials and methods used by elementary classroom music specialist. Observation in area schools.

67.343 GENERAL MUSIC IN THE SECONDARY SCHOOL (3) Teaching music to adolescents in junior and senior high school general music classes.

67.344 VOCAL MUSIC IN THE SECONDARY SCHOOL (3) Vocal and choral techniques in junior and senior high school. Study and development of methods and materials. Rehearsal management and organization of choral music program.

Graduate and Advanced Undergraduate Courses

67.520 STUDIES IN MUSIC LITERATURE (3) Survey of preselected area, such as chamber, orchestral, keyboard, or choral music, etc. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite*: 67.231 or concurrent registration.

67.524 STUDIES IN MUSIC THEORY (3) Studies in-depth in specific areas of theoretical concern, such as fugue, electronic music, chance vs. control as compositional principles; and techniques of variation. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite*: 67.325.

67.527 ADVANCED CONDUCTING (3) Conductor's role in preparation and presentation of more complex masterworks. Students are expected to participate in laboratory conducting experiences. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate springs. *Prerequisites:* 67.327 and 67.328 or equivalent.

67.531 MUSIC OF THE BAROQUE ERA (3) Advanced study of European music of the seventeenth and early eighteenth centuries. Comprehensive coverage of styles and forms, illustrated with slides and recordings. Usually offered alternate falls. *Prerequisite:* 67.230 or equivalent.

67.532 MUSIC OF THE CLASSIC ERA (3) Growth of new idioms and forms from the early eighteenth to the early nineteenth century. Illustrated with slides and recordings. Usually offered alternate springs. *Prerequisite:* 67.231 or equivalent.

67.533 MUSIC OF THE ROMANTIC PERIOD (3) Historical and cultural background; intensive study of the composers and works of the period; emphasis on individual styles; nationalism, program music. *Prerequisite:* 67.231 or equivalent.

67.534 MUSIC OF THE TWENTIETH CENTURY (3) Chronological survey of musical styles and ideas from 1900 to the present, with emphasis on a few selected composers. Illustrated with slides and recordings. Usually offered every summer. *Prerequisite:* 67.231 or equivalent.

67.535 STUDIES IN MUSIC HISTORY (3) History of preselected area, such as opera, music theory, musical instruments, etc. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* 67.231 or concurrent registration.

67.536 INTRODUCTION TO MUSICOLOGY (3) Methods and tools of research. Class project, oral report and written paper. Transcription of vocal notations and instrumental tablatures. Survey of scholarly editions, periodicals, and reference works in the major European languages. Usually offered every fall. *Prerequisite:* 67.230–67.231 or equivalent.

67.540 INTRODUCTION TO GRADUATE STUDY IN MUSIC EDUCATION (3) Research techniques and materials designed to acquaint the practicing music educator with useful findings and applicable methods. Bibliography and library references. Usually offered every spring.

67.541 MUSIC EDUCATION SEMINAR (VOCAL, GENERAL, INSTRUMENTAL) (3) Advanced study of a specific, preselected area in music education. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* 67.341 or 67.342 as applicable.

67.542 THE PSYCHOLOGY OF MUSIC (3) Insight into man's responses to music and music as art object via investigation of psychological, philosophical, and acoustical data. *Prerequisite:* permission of instructor.

67.543 PEDAGOGY I (2) Seminar to explore concepts of vocal and instrumental performance and their application to teaching in private studio. Usually offered every fall. *Prerequisite:* permission of instructor.

67.544 PEDAGOGY II (2) Survey of literature and teaching of instrumental and vocal techniques. Usually offered every spring.

67.545 CHAMBER ENSEMBLES (1) Performance in particular areas of music literature by small, select groups, including Collegium Musicum. Vocal and instrumental sections. Emphasis on baroque, renaissance, and medieval music, using departmental collection of lutes, viol, recorders, cromornes, cornetti, sackbuts, harpsichords, etc. May be taken four times for credit by graduate students. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* audition.

67.546 INTERNSHIP IN MUSIC (3) Practical professional experience for selected students who work with cooperating agency directly in their professional field under faculty guidance and supervision. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* permission of department chairman.

Graduate Courses

67.731 MEDIEVAL MUSIC (3) Advanced study of European music from the early Christian era to the beginning of the fifteenth century. Emphasis on stylistic and notational problems, primary sources, and bibliography. Illustrated with slides and recordings. Written paper and taped listening assignments. Usually offered alternate falls. *Prerequisite:* 67.230 or equivalent.

67.732 RENAISSANCE MUSIC (3) Comprehensive survey of European music of the fifteenth and

sixteenth centuries. Emphasis on stylistic innovations, primary sources and bibliography. Usually offered alternate springs. *Prerequisite:* 67.230 or equivalent.

67.734 MUSIC: TWENTIETH CENTURY COUNTERPOINT (3) Study, through analysis, of important contrapuntal styles of the past seventy years. Study of practical creative writing problems in each style. *Prerequisite:* 67.325.

67.735 MUSIC: ANALYTICAL STUDIES (3) Analysis of specified works, composers, styles, idioms, and forms. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisite:* 67.325.

67.736 MUSICOLOGY SEMINAR (3) Advanced study in preselected areas, such as performance practices, early notation, the Italian madrigal, etc. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* 67.536 or equivalent.

67.737 MUSIC: ADVANCED COMPOSITION (3) Guidance in writing large forms and in experimental idioms. Assignments adapted to individual needs, interests, and talents. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisite:* 67.338 or permission of instructor.

67.740 SUPERVISION AND ADMINISTRATION OF MUSIC EDUCATION (3) Nature and scope of supervision, supervisory relationships, procedures, and techniques; organization and improvement of music curricula, administration of music programs and development of evaluative criteria.

67.749 RESEARCH PERFORMANCE: LECTURE RECITAL (3-6) Research topics for M.A. candidates in performance who must present a lecture-recital. Work includes intensive private instrumental or vocal study and research in lecture topic area. May not be taken concurrently with applied music classes or before the M.A. recital requirement has been completed. Usually offered every term. *Prerequisite:* permission of department chairman.

MUSIC: APPLIED MUSIC

Undergraduate Courses

68.121 PRIVATE INSTRUMENTAL OR VOCAL STUDY (1) Limited to students not majoring in music or music majors on secondary instruments. Usually offered every term. Has a nonstandard tuition rate. *Prerequisites:* 67.114 for guitar; 67.116 for piano; 67.118 for voice; 67.150 for orchestral instruments (beginners), or equivalent.

68.122 PRIVATE INSTRUMENTAL OR VOCAL STUDY (2) Limited to students not majoring in music. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate.

68.131 PRIVATE INSTRUMENTAL OR VOCAL STUDY (1) Limited to students majoring in music. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. Has a nonstandard tuition rate.

68.132 PRIVATE INSTRUMENTAL OR VOCAL STUDY (2) Limited to students majoring in music. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate.

68.334 PRIVATE INSTRUMENTAL OR VOCAL STUDY (4) Enrollment limited. Recital required. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* audition and permission of department chairman.

68.434 PRIVATE INSTRUMENTAL OR VOCAL STUDY (4) Enrollment limited. Recital required. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisites:* audition and permission of department chairman.

Graduate and Advanced Undergraduate Courses

68.531 PRIVATE INSTRUMENTAL OR VOCAL STUDY (1) Directed at nonperformance major. Admission predicated on completion of second year of undergraduate applied music major requirements and audition. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. Has a nonstandard tuition rate.

68.532 PRIVATE INSTRUMENTAL OR VOCAL STUDY (2) Directed at nonperformance major. Admission predicated on completion of the second year of undergraduate applied music major requirements and audition. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate.

68.534 STUDIO ACCOMPANYING (2) Provides piano student practical studio experience with singers and instrumentalists; includes two supervised hours (lessons) and four preparation hours per week. Required of all piano performance majors. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. *Prerequisite:* audition consisting of sight reading and performance of two songs handed out a week in advance of audition.

Graduate Courses

68.791 PRIVATE INSTRUMENTAL OR VOCAL STUDY (1) May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. Has a nonstandard tuition rate. *Prerequisite:* written permission from department.

68.792 PRIVATE INSTRUMENTAL OR VOCAL STUDY (2) May be repeated up to six hours by master's degree candidate in performance. Others limited to four hours. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring. Has a nonstandard tuition rate. *Prerequisite:* written permission from the department.

THEATRE

Undergraduate Courses

67.150 INTRODUCTION TO PERFORMING ARTS: THEATRE (3) Designed to give any student general overview of performing and theatrical arts, at the same time investigating the role of theatre in society. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

67.151 THEATRE: THE INTERDISCIPLINARY ART (3) Interdisciplinary course structured to explore arts, humanities, social sciences, and physical sciences as viewed through, and as utilized by, theatrical art (Freshman Module course). May be taken for the arts and humanities distribution requirement. Usually offered every fall.

67.155 ORAL INTERPRETATION (3) Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience. May be taken for the arts and humanities distribution requirement. Usually offered every term.

67.250 INDIVIDUAL CREATIVE EXPRESSION (3) Investigation and exploration of the innate creative capacities of individuals and attempt to stimulate and broaden each student's creative capabilities. Work includes improvisation, mimetic expression, theatre games, and imagination expansion. May be taken for the arts and humanities distribution requirement. Usually offered every fall and every spring.

67.251 BASIC ACTING TECHNIQUES (3) Designed to provide the student with the basic foundations of performance skills. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall and every spring.

67.260 PRINCIPLES OF PRODUCTION I (3) The purpose of this course is to give the student experience in working with construction, drawing, and lighting concepts in the technical areas of production. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

67.262 COSTUME DESIGN FOR PERFORMING ARTS (3) Introduction to many-faceted problems of designing costumes for the human form on stage: investigation of historical and contemporary traditions. Usually offered every spring.

67.350 THEATRE: PERFORMANCE TECHNIQUES I (3) Planned from performance point of view. Integrates works and talents of actor, director, and writer and introduces student to the total theatrical experience. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall.

67.351 THEATRE: PERFORMANCE TECHNIQUES II (3) Continuation of 67.350. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every spring. *Prerequisite:* 67.350 or permission of instructor.

67.352 BEGINNING DIRECTING I (3) A studio course providing training in both the theory and practice of blocking and play analysis for the beginning director. Arena, proscenium, and environmental staging are considered. Usually offered every fall.

67.354 STAGE MOVEMENT (3) Analysis and understanding of the body movement as actor's visual means of communication with an audience.

67.355 SPEECH AND VOICE FOR THE THEATRE (3) Intended primarily for theatre majors concerned with development of effective techniques of voice and diction.

67.360 THEATRE: PRODUCTION TECHNIQUES (3) Designed to provide exposure to and exploration of all visual, auditory, and management phases of theatre and performing arts. Areas covered include all phases of theatrical design and construction, management, publicity/public relations and the visual arts. Usually offered every fall.

67.362 LIGHTING DESIGN (3) Lighting instruments, control boards, and the use of lighting as an integral part of design for the performing arts. Usually offered every spring. *Prerequisite:* permission of instructor.

67.365 WORLD THEATRE I (3) Historical pattern of theatre as art form and social function from its earliest appearance through the Renaissance. Meets jointly with 67.665. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

67.366 WORLD THEATRE II (3) Historical pattern of theatre as art form and social function from Baroque to present. Meets jointly with 67.666. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 67.310.

67.367 MODERN AMERICAN THEATRE AND DRAMA (3) American drama from O'Neill to the present. May be taken for the arts and humanities distribution requirement.

67.450 ROTATING TOPICS IN ACTING/DIRECTING (3) Designed for advanced undergraduate or graduate student who wishes to study varying and special problems approached from perspective of director. Emphasis on various approaches to performance material and preparation techniques. Meets jointly with 67.650. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.462 COSTUME DESIGN (3) Study of the history and design of theatrical costumes from late sixteenth century to the present.

67.463 ADVANCED SCENE DESIGN (3) Fundamentals of design for the performing arts: preparation of sketches and drawings based upon the principal styles and periods in performing arts. Meets jointly with 67.663. *Prerequisite:* permission of instructor.

Graduate and Advanced Undergraduate Courses

67.551 ADVANCED ACTING (3) Seminar laboratory course dealing with the advanced study of actor's problems with particular emphasis on various theatrical styles.

67.552 ADVANCED DIRECTING (3) Seminar laboratory course in problems of directing plays for theatre.

67.561 ADVANCED COSTUME DESIGN (3) Study of history and design of theatrical costumes from late sixteenth century to present. Meets jointly with 67.462.

67.564 ADVANCED PLAYWRITING (3) Theory and practice of advanced techniques of dramatic writing for theatre.

67.565 SEMINAR IN DRAMATIC THEORY AND CRITICISM (3) An investigation of modern acting and directing theories, the concepts and criteria for modern criticism in this field, and the major figures propounding them. Usually offered every spring.

67.566 SEMINAR IN THEATRE HISTORY (3) Intensive study of one or more topics in the broad range of theatre history through discussion, oral presentation, and written assignments. *Prerequisite:* permission of instructor.

67.567 HISTORY OF AMERICAN THEATRE (3) Theatre in America as a cultural force from colonial period to present.

67.568 SEMINAR IN METHODS OF TEACHING THEATRE (3) Designed to acquaint the prospective theatre teacher with philosophy, theory, practice and methods of theatre education. Usually offered every spring.

67.569 SEMINAR IN THEATRE (3) Problems in items of theatrical presentation of theatre history. Topics are announced the semester the course is offered. May be repeated for credit, but not within the same term; topic must be different.

Graduate Courses

67.650 ROTATING TOPICS IN ACTING/DIRECTING (3) Designed for advanced graduate student who wishes to study varying and special problems approached from perspective of director. Course investigates specific problems of performance and emphasizes various approaches to performance material and preparation techniques. Meets jointly with 67.450. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall and every spring.

67.660 PROBLEMS IN THEATRICAL DESIGN (3) Special design problems to meet the interests of individual students in design for drama, ballet, and opera.

67.663 ADVANCED SCENE DESIGN (3) Fundamentals of design for the performing arts. Preparation of sketches and drawings based upon the principle styles and periods in performing arts. Meets jointly with 67.463. *Prerequisite:* permission of instructor.

67.665 WORLD THEATRE I (3) Historical pattern of theatre as art form and social function from its earliest appearance through the Renaissance. Meets jointly with 67.365. Usually offered every fall.

67.666 WORLD THEATRE II (3) Historical pattern of theatre as art form and social function from Baroque to present. Meets jointly with 67.366. Usually offered every spring. *Prerequisite:* 66.665.

ARTS MANAGEMENT

Graduate and Advanced Undergraduate Courses

67.570 SURVEY OF ARTS MANAGEMENT (3) Study of various facets of management in the arts; contracts, logistics, and organization, etc. Usually offered every fall. *Prerequisite:* permission of instructor.

67.571 PROMOTION AND PUBLIC RELATIONS FOR PERFORMING ARTS (3) Examination of the (new and old) techniques of audience development for arts institutions as well as exploration and strengthening of the basic promotion and public relations skills. Usually offered every spring. *Prerequisite:* permission of instructor.

67.572 CASE STUDIES IN PERFORMING ARTS MANAGEMENT (3) Explores in-depth three major areas of arts management: grants and fund raising, box office and income, and general administration. Usually offered every spring. *Prerequisite:* 67.570 or permission of instructor.

67.573 ARTISTIC AND ORGANIZATIONAL PLANNING IN MANAGING THE PERFORMING ARTS (3) Designed to study arts organizations and their structures. Study is divided into four areas of concentration; structure, organization, centers, and councils. Usually offered every fall. *Prerequisite:* 67.570 or permission of instructor.

ACADEMY FOR THE PERFORMING ARTS

Undergraduate Courses

48.390 INDEPENDENT READING COURSE: ACADEMY FOR THE PERFORMING ARTS (1-6)*

48.480 ACADEMY DANCE PROGRAM (1-4) Intensive workshops with professional dancers. Individual classes include all levels of modern dance technique and composition of dance. Other classes may include lighting, tai chi, mime, ballet, dance therapy, costuming and yoga. Exact program varies each summer. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

48.481 ACADEMY MUSIC PROGRAM (1-4) A series of workshops for the musician—concentrations vary from summer to summer and have included workshops in Choral Conducting, Voice, Composing, guitar, Orff Schulwerk, and Kodaly. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

48.482 ACADEMY THEATRE PROGRAM (1-4) Intensive workshops with professional acting companies. Emphasis is on a variety of theatre techniques. Classes include scene study, voice workshop, directing techniques, and other courses which may change from summer to summer. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

* See description under General Curriculum Information in this publication.

48.490 INDEPENDENT STUDY PROJECT: ACADEMY FOR THE PERFORMING ARTS (1-6)***Graduate and Advanced Undergraduate Courses**

48.584 WRITER'S CONFERENCE (3) A six-day conference for students and teachers, beginning and advanced writers, interested in poetry and fiction. Faculty changes from summer to summer. Usually offered every summer. Has a nonstandard tuition rate.

48.590 INDEPENDENT READING COURSE: ACADEMY FOR THE PERFORMING ARTS (1-6)***Graduate Courses**

48.680 ACADEMY DANCE PROGRAM (1-4) Advanced intensive workshops with professional dancers. Individual classes include modern dance technique and composition of dance. Other classes may include lighting, anatomy for dancers, ballet, music for dance, tap, and jazz. Exact program varies each summer. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

48.681 ACADEMY MUSIC PROGRAM (1-4) A series of advanced workshops for the musician and teacher. Concentrations vary from summer to summer and have included workshops in Choral Conducting, Voice, Composing, Guitar, Orff Schulwerk, and Kodaly. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

48.682 ACADEMY THEATRE PROGRAM (1-4) Advanced intensive workshops with visiting professional acting companies. Emphasis is on a variety of theatre techniques. Classes include scene study, voice workshop, directing techniques and other courses which may change from summer to summer. May be repeated for credit within the same term; topic may be the same. Usually offered every summer. Has a nonstandard tuition rate.

48.690 INDEPENDENT STUDY PROJECT: ACADEMY FOR THE PERFORMING ARTS (1-6)***Philosophy and Religion**

CHAIRMAN Theodore R. Rosché

FULL-TIME FACULTY

Professor H. A. Durfee (William Frazer McDowell Professor), T. R. Rosché R. Simonds

Associate Professor G. Greenberg, C. D. Hardwick, D. F. T. Rodier, P. H. Scribner, C. S. J. White

Philosophy analyzes the nature and the meaning of the ultimate theoretical principles in terms of which we explain our existence. It considers such questions as the nature of the real, the problem of value, the criteria of the true, the logical principles of explanation, and approaches these questions through the historical literature and contemporary developments. In addition to those who major in the field, many students find this a helpful minor concentration in order to deal with the theoretical issues that arise in their major disciplines.

The study of religion deals with the literature, history, theology, theories, and practices associated with the world's major religious traditions. Courses are offered in Judaism, Christianity, and Islam, as well as substantial offerings in non-Western religions such as Hinduism and Buddhism. Opportunities are provided for studying the impact of religious traditions on contemporary society and the interplay of modern religious, scientific, and cultural movements.

Undergraduate Program in Philosophy

TRACKS Regular or Honors

ADMISSION TO THE PROGRAM The department counsels freshmen and new transfer students. Admission is through a formal declaration of major.

**Required
Options**

Regular Track: 30 semester hours in philosophy (in which one may include 9 hours in religion) with at least a grade of C (2.00) or P (Pass) in all major or major-related courses and 9 additional semester hours at the 300-level or above in a single department with the same grade requirements as above.

* See description under General Curriculum Information in this publication.

Honors Track: (1) 30 semester hours in philosophy, including 60.100, 60.300, and 60.301, in which one may include up to 9 hours in religion at the 300-level or above. No more than 9 semester hours in major or related courses may be taken on a pass-fail basis.

(2) Related Courses: 9 additional semester hours at the 300-level or above in a single department or area.

(3) In the senior year students will either take six semester hours of 60.498 and prepare a senior thesis or choose to take a final comprehensive examination, one part of which will be based upon an acceptable research paper. The six hours of 60.498 may be counted toward the requirements listed above.

(4) Language Requirement: One language through the intermediate level: French, German, Greek, or Latin. Another language may be offered, with permission, if related to the student's research interests.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Philosophy. In addition to the major, students in the honors track receive Departmental Honors in Philosophy.

Undergraduate Program in Religion

TRACKS Regular or Honors

ADMISSION TO PROGRAM The department counsels freshman and new transfer students. Admission is through a formal declaration of major.

Required Options

Regular Track: 30 semester hours in religion (in which one may include 9 hours in philosophy and/or Jewish studies) and 9 additional semester hours at the 300-level or above in a single department. The student may take as many courses as he or she wishes for a P (Pass) grade.

Honors Track: (1) 30 semester hours in religion to include 9 hours from among 61.150, 61.170, 61.180, and 61.270; 61.183; 3 additional hours from among advanced level courses in non-Judeo-Christian religious traditions; 15 additional hours in religion in which one may include up to 9 hours in philosophy or Jewish studies or both at the 300-level or above. No more than 9 semester hours may be taken on a pass-fail basis.

(2) Related Courses: Nine additional hours at the 300-level or above in a single department.

(3) In the senior year students will take either six semester hours of 61.498 and prepare a senior thesis or choose to take a final comprehensive examination, one part of which will be based upon an acceptable research paper. The six hours of 61.498 may be counted toward the requirements listed above.

(4) One language through the intermediate level: French, German, Spanish, Latin, Greek, Hebrew, or Sanskrit. Another language may be offered, with permission, if related to one's research interests.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Religion. In addition to the major, students in the honors track receive Departmental Honors in Religion.

Master's Program in Philosophy

ADMISSION TO THE PROGRAM The candidate must meet the minimum University requirements for admission to graduate study as set forth elsewhere in this publication. Two letters of recommendation and the GRE Aptitude and Advanced are required.

Course Requirements Minimum of 30 semester hours of approved graduate work, including six hours of 60.797.

Advancement to Candidacy Successful completion of 12 semester hours of graduate work.

Tools Proficiency examination in either French or German.

Examinations One eight-hour examination in philosophy (administered in two days, four hours each day). Examination fields 60.01A and 60.01B.

Thesis

Thesis and oral defense of thesis.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Philosophy.

NOTE ALSO Upon application, students satisfactorily completing all requirements for the Ph.D. in Philosophy except the dissertation will receive a Master of Arts degree with a major in Philosophy.

Master's Program in Religious Studies

ADMISSION TO THE PROGRAM The candidate must meet the minimum University requirements for admission to graduate study as set forth elsewhere in this publication. Two letters of recommendation are required. The GRE Aptitude is recommended.

Course Requirements Minimum of 30 semester hours of approved graduate work, including six hours of 61.797.

Special Opportunities 61.692 and 61.694; intensive study of selected problems in religious thought. With faculty permission, student attends undergraduate class in selected problem. Student also meets individually with professor for additional intensive tutorial work. Register for 61.694 if graduate degree is in religious studies; 61.692 has been designed for graduate students in other fields who wish to do interdisciplinary work in religious studies.

Advancement to Candidacy Successful completion of 12 semester hours of graduate work.

Tools Proficiency in one of the following: French, German, Greek, or Hebrew.

Examinations Three written examinations: one in History of Christian Thought (61.021)—with special emphasis upon a selected classical figure; one in History of Religions (61.003)—with special emphasis upon a selected non-Christian and non-Jewish religion; one in English Bible (61.004)—with special emphasis upon a selected author.

Thesis Thesis and oral defense of thesis.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Religious Studies.

Master's Program in the History of Religions

TRACKS The Hindu Tradition

ADMISSION TO THE PROGRAM Suitable background in religious and/or South Asian studies. Applications made directly to the Department of Philosophy and Religion. GRE Aptitude recommended. Two letters of recommendation required.

Course Requirements 30 semester hours of approved graduate level course work at the member universities of the Consortium of Universities of the Washington Metropolitan Area. Within these 30 hours the following courses are required: George Washington University course Rel.159, Georgetown University course 095-108, The Catholic University of America course 970, and The American University course 61.694, and one course in methodology. Also included are 6 semester hours of Master's Thesis Seminar at the student's home university (for American University students, this is 61.797).

Advancement to Candidacy Successful completion of 12 semester hours of graduate work.

Tools An examination in either French or German (another modern language may be substituted with approval); at least two semesters of either Sanskrit or Hindi. (When appropriate, this requirement may be waived by examination.)

Examinations Comprehensive examination with the following three components, given during the last semester of course work: methods in the study of religions; the Hindu tradition; thematic comparisons between the Hindu tradition and at least one other tradition of the student's choice.

Thesis Thesis on one particular aspect of the Hindu tradition, submitted during the final semester of course work.

DEGREE OBJECTIVE Student receives a degree of Master of Arts with a major in the History of Religions.

Doctoral Program in Philosophy

ADMISSION TO THE PROGRAM It is recommended that the student have a superior undergraduate record and take the Graduate Record Examination including the philosophy examination. Two letters of recommendation are required.

Course Requirements	72 semester hours, including from 12 to 24 hours of 60.799.
Special Opportunities	The student may take from 3 to 12 semester hours of 60.702 each semester for special tutorial instruction in place of course registration.
Advancement to Candidacy	Completion of written examination, comprehensive examination papers, oral comprehensive, and tool requirements.
Tools	Proficiency examination in French or German, and 60.650. Language proficiency may be demonstrated by passing the Graduate Student Foreign Language Test (GSFLT), or by course work through intermediate level with B or better, or by tool of research examination.
Examinations	(1) Within the first 24 semester hours of course work, a written eight hour comprehensive examination (60.090—four hours in History of Philosophy and four hours of Systematic Philosophy). (2) Written comprehensive examination papers on three essentially different topics approved by the department: a philosopher (60.085), a movement (60.080), a period (60.075), and/or a problem (in metaphysics (60.015), philosophy of science (60.030), philosophy of religion (60.025), social philosophy (60.035), ethics (60.020), logic (60.011) and /or epistemology (60.012). (3) An oral comprehensive examination in an area selected by the student.
Dissertation	Dissertation and oral defense of dissertation.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Philosophy.

Courses of Instruction

PHILOSOPHY

Undergraduate Courses

- 60.100 INTRODUCTION TO LOGIC (3)** Basic principles of inductive and deductive reasoning. Tests and exercises supplemented by readings and discussions on history, philosophy and applications of logic. May be taken for the arts and humanities distribution requirement. Usually offered every term.
- 60.101 INTRODUCTION TO PHILOSOPHY (3)** Questions man has asked about himself, the world, and the origin, purpose, and destiny of life; representative answers given by the great thinkers. May be taken for the arts and humanities distribution requirement. Usually offered every term.
- 60.102 PHILOSOPHIES MEN LIVE BY (3)** Selected philosophers in the history of Western thought and their relevance to human existence. May be taken for the arts and humanities distribution requirement.

HISTORY OF IDEAS

60.300 ANCIENT AND MEDIEVAL PHILOSOPHY (3) History of Western philosophy from earliest period through sixteenth century. Understanding the various philosophers in terms of general cultural milieu. History of philosophy during this period interpreted in terms of formation of classical world-view and accommodation of this world picture to requirements of Judaism, Christianity, and Islam. No previous philosophic training assumed and nonphilosophy majors encouraged to correlate history of philosophy with historical aspects of own discipline. Meets jointly with 60.600. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

60.301 MODERN PHILOSOPHY FROM BACON TO HEGEL (3) Development of modern Western philosophical ideas studied in relation to the scientific, cultural and political environment of seventeenth and eighteenth century Europe. No previous course work in philosophy required, but students will find it helpful to have taken 60.300. Meets jointly with 60.601. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

60.302 RECENT PHILOSOPHY SINCE HEGEL (3) Philosophers from Hegel to contemporary existentialism and linguistic analysis. Not open to freshmen. Meets jointly with 60.602. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

60.303 AMERICAN PHILOSOPHY (3) Backgrounds and substance of American philosophy since colonial times. Role of philosophical ideas, European and indigenous, in growth of American culture. Meets jointly with 60.603. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

MAJOR PHILOSOPHERS AND MOVEMENTS

60.310 THE CLASSICAL PERIOD (3) Regularly recurring topics: The Pre-Socratics, Plato; Aristotle; Neo-Platonism, and Augustine. Meets jointly with 60.610. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* 60.300 or permission of instructor.

60.311 MODERN EUROPEAN MOVEMENTS (3) Regularly recurring topics: The British Empiricists; Continental Rationalists, Kant, Hegel, and Post-Hegelian Idealism. Meets jointly with 60.611. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* 60.301 or permission of instructor.

60.312 RECENT AND CONTEMPORARY PHILOSOPHERS (3) Regularly recurring topics: Nietzsche, Kierkegaard, Husserl, Naturalism, French Existentialism, German Existentialism, Post-Existential Phenomenology, Analytic Philosophy, Analytic Philosophy and Phenomenology. Meets jointly with 60.612. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* two courses in philosophy or permission of instructor.

60.313 STUDIES IN ORIENTAL PHILOSOPHY (3) Regularly recurring topics: Buddhist Philosophy, Chinese Philosophy. Meets jointly with 60.613. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

PHILOSOPHY AND SOCIETY

60.320 ETHICS (3) Inquiry into the principles of moral evaluation, their relation to factual judgment, and individual and social behavior. Evaluation of traditional schools and theories of ethics. Meets jointly with 60.620. May be taken for the arts and humanities distribution requirement. Usually offered every fall. *Prerequisite:* one course in philosophy.

60.321 PHILOSOPHY, POLITICS, AND SOCIETY (3) Theories about the nature of society and justification of social institutions; critical study of selected social problems (control of technology and the environment, education, militarism, racism, imperialism, civil disobedience, rebellion, and revolution). Meets jointly with 60.621. May be taken for the social sciences distribution requirement or the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* one course in philosophy.

60.322 PHILOSOPHY AND THE LAW (3) Investigation of some leading philosophical theories of the nature and functions of law, and relationship of these theories to legal traditions themselves. Meets jointly with 60.622. May be taken for the social sciences distribution requirement or the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

PHILOSOPHY AND THE ARTS

60.330 AESTHETICS (3) Philosophical theories of meaning and value of art in Western culture, illustrated by reference to specific works of literature, drama, painting, sculpture, architecture, and music. Students majoring in artistic fields encouraged to do interdisciplinary projects dealing with application of aesthetic theory to materials in their own fields. Meets jointly with 60.630. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

60.331 ROMANTICISM (3) Exploration of some main themes in philosophical writings of late eighteenth and early nineteenth centuries associated with the Romantic movement in literature and the arts. Readings in Rousseau, de Stael, Kant, Schiller, Fichte, Schelling, Chateaubriand, Schopenhauer, and others. First ten weeks devoted to lecture-discussions on philosophical themes in these writings. Students are expected to develop projects relating these themes to materials in their own major field of interest. Some of these projects presented and discussed in the latter part of the course. Meets jointly with 60.631. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

PHILOSOPHY AND THE SCIENCES

60.340 PHILOSOPHY OF SCIENCE (3) Fundamental questions about the logic of scientific theory, the process of discovery, and the relations between scientific and philosophical concepts. Meets jointly with 60.640. May be taken for the natural sciences distribution requirement or the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* 60.100 or permission of instructor.

60.341 PHILOSOPHY OF THE SOCIAL SCIENCES (3) Includes the nature of explanation, extent of prediction, use of theories, applicability of the methods of natural sciences in the social sciences, and objectivity and value neutrality of social scientific knowledge. Meets jointly with 60.641. May be taken for the social sciences distribution requirement or the arts and humanities distribution requirement. Usually offered alternate falls. *Prerequisite:* one course in philosophy or permission of instructor.

SYSTEMATIC PHILOSOPHY AND ANALYSIS

60.350 MODERN DEDUCTIVE LOGIC (3) Introduction to modern symbolic methods in deductive reasoning with some discussion of the merits of competing systems and the philosophical issues involved. No special knowledge of mathematics required. Meets jointly with 60.650. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs. *Prerequisite:* 60.100 or permission of instructor.

60.351 LOGICAL ANALYSIS (3) Application of logical theory to philosophical discourse. Includes concept of truth, propositions, theory of descriptions, existential import, modal and deontic functions. Meets jointly with 60.651. May be taken for the arts and humanities distribution requirement. *Prerequisite:* 60.350.

60.352 EPISTEMOLOGY (3) One of following topics: Knowledge and Belief, Memory and the Past, Meaning and Meaningfulness, Thought and Feeling, and Observation in the Social Sciences. Meets jointly with 60.652. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs. *Prerequisite:* two courses in philosophy or permission of instructor.

60.353 METAPHYSICS (3) One of following topics: Mind and Soul, The Concept of Freedom, Analysis and Explanation of Action, and Metaphysics and Metaphilosophy. Meets jointly with 60.653. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs. *Prerequisite:* two courses in philosophy or permission of instructor.

60.354 ETHICS AND META-ETHICS (3) One of following topics: Analytic Ethics, The Boundaries of Ethics, and Existential Behavior. Meets jointly with 60.654. May be repeated for credit, but not within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every spring. *Prerequisite:* two courses in philosophy or permission of instructor.

60.355 PHILOSOPHY OF RELIGION (3) Study of leading contemporary movements in philosophy of religion. Meets jointly with 60.655. May be taken for the arts and humanities distribution requirement or social sciences distribution requirement. Usually offered alternate falls. *Prerequisite:* two courses in philosophy or permission of instructor.

60.390 INDEPENDENT READING COURSE IN PHILOSOPHY (1-6)*

60.490 INDEPENDENT STUDY PROJECT IN PHILOSOPHY (1-6)*

60.498 HONORS PROJECT IN PHILOSOPHY (3-6) May be repeated for credit within the same term; topic must be different. Usually offered every term. *Prerequisite:* departmental permission.

GRADUATE AND ADVANCED UNDERGRADUATE COURSES

60.590 INDEPENDENT READING COURSE IN PHILOSOPHY (1-6)***Graduate Courses**

60.600 ANCIENT AND MEDIEVAL PHILOSOPHY (3) History of western philosophy from earliest period through sixteenth century. Understanding the various philosophers in terms of general cultural milieu. History of philosophy during this period interpreted in terms of formation of classical world-view and accommodation of this world picture to requirements of Judaism, Christianity, and Islam. No previous philosophic training assumed and nonphilosophy majors encouraged to correlate history of philosophy with historical aspects of own discipline. Meets jointly with 60.300. Usually offered every fall.

60.601 MODERN PHILOSOPHY FROM BACON TO HEGEL (3) Development of modern Western philosophical ideas studied in relation to the scientific, cultural, and political environment of seventeenth and eighteenth century Europe. Meets jointly with 60.301. Usually offered every spring. *Prerequisite:* no previous course-work in philosophy, but students will find it helpful to have taken 60.300.

60.602 RECENT PHILOSOPHY SINCE HEGEL (3) Philosophers from Hegel to contemporary existentialism and linguistic analysis. Meets jointly with 60.302. Usually offered alternate falls.

60.603 AMERICAN PHILOSOPHY (3) Backgrounds and substance of American philosophy since colonial times. Role of philosophical ideas, European and indigenous, in growth of American culture. Meets jointly with 60.303. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

60.610 THE CLASSICAL PERIOD (3) Regularly recurring topics: The Pre-Socratics, Plato, Aristotle, Neo-Platonism, and Augustine. Meets jointly with 60.310. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisite:* 60.300 or permission of instructor.

60.611 MODERN EUROPEAN MOVEMENTS (3) Regularly recurring topics: The British Empiricists, Continental Rationalists, Kant, Hegel, and Post-Hegelian Idealism. Meets jointly with 60.311. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall. *Prerequisite:* 60.301 or permission of instructor.

60.612 RECENT AND CONTEMPORARY PHILOSOPHERS (3) Regularly recurring topics: Nietzsche, Kierkegaard, Husserl, Naturalism, French Existentialism, German Existentialism, Post Existential Phenomenology, Analytic Philosophy, and Analytic Philosophy and Phenomenology. Meets jointly with 60.312. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate falls. *Prerequisite:* two courses in philosophy or permission of instructor.

60.613 STUDIES IN ORIENTAL PHILOSOPHY (3) Regularly recurring topics: Buddhist Philosophy, Chinese Philosophy. Meets jointly with 60.313. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate springs.

60.620 ETHICS (3) Inquiry into the principles of moral evaluation, their relation to factual judgment, and individual and social behavior. Evaluation of traditional schools and theories of ethics. Meets jointly with 60.320. Usually offered every fall. *Prerequisite:* one course in philosophy.

60.621 PHILOSOPHY, POLITICS AND SOCIETY (3) Theories about the nature of society and justification of social institutions; critical study of selected social problems (control of technology and the environment, education, militarism, racism, imperialism, civil disobedience, rebellion, and revolution). Meets jointly with 60.321. Usually offered every spring. *Prerequisite:* one course in philosophy.

60.622 PHILOSOPHY AND THE LAW (3) Investigation of some leading philosophical theories of the nature and functions of law, and relationship of these theories to legal traditions themselves. Meets jointly with 60.322. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

60.630 AESTHETICS (3) Philosophical theories of meaning and value of art in Western culture, illustrated by reference to specific works of literature, drama, painting, sculpture, architecture, and music. Students majoring in artistic fields encouraged to do interdisciplinary projects dealing with application of aesthetic theory to material in their own fields. Meets jointly with 60.330. Usually offered alternate falls. *Prerequisite:* one course in philosophy.

* See description under General Curriculum Information in this publication.

60.631 ROMANTICISM (3) Exploration of some main themes in philosophical writings of late eighteenth and early nineteenth centuries associated with the romantic movement in literature and the arts. Readings in Rousseau, de Stael, Kant, Schiller, Fichte, Schelling, Chateaubriand, Schopenhauer, and others. First ten weeks devoted to lecture-discussions on philosophical themes in these writings. Students are expected to develop projects relating these themes to materials in their major field of interest. Some of these projects presented and discussed in the latter part of the course. Meets jointly with 60.331. Usually offered alternate falls.

60.640 PHILOSOPHY OF SCIENCE (3) Fundamental questions about the logic of scientific theory, the process of discovery, and the relations between scientific and philosophical concepts. Meets jointly with 60.340. Usually offered alternate falls. *Prerequisite:* 60.100 or permission of instructor.

60.641 PHILOSOPHY OF THE SOCIAL SCIENCES (3) Includes the nature of explanation, extent of prediction, use of theories, applicability of the methods of natural sciences in the social sciences, and objectivity and value neutrality of social scientific knowledge. Meets jointly with 60.341. Usually offered alternate falls. *Prerequisite:* one course in philosophy or permission of instructor.

60.650 MODERN DEDUCTIVE LOGIC (3) Introduction to modern symbolic methods in deductive reasoning with some discussion of the merits of competing systems and the philosophical issues involved. No special knowledge of mathematics required. Meets jointly with 60.350. Usually offered alternate springs. *Prerequisite:* 60.100 or permission of instructor.

60.651 LOGICAL ANALYSIS (3) Application of logical theory to philosophical discourse. Includes concept of truth, propositions, theory of descriptions, existential import, modal and deontic function. Meets jointly with 60.351. *Prerequisite:* 60.350.

60.652 EPISTEMOLOGY (3) One of following topics: Knowledge of Belief, Memory and the Past, Meaning and Meaningfulness, Thought and Feeling, and Observation in the Social Sciences. Meets jointly with 60.352. May be repeated for credit, but not within the same term; topic must be different. Usually alternate springs. *Prerequisite:* two courses in philosophy or permission of instructor.

60.653 METAPHYSICS (3) One of following topics: Mind and Soul, the Concept of Freedom, Analysis and Explanation of Action, and Metaphysics and Metaphilosophy. Meets jointly with 60.353. May be repeated for credit, but not within the same term; topic must be different. Usually offered alternate springs. *Prerequisite:* two courses in philosophy or permission of instructor.

60.654 ETHICS AND META-ETHICS (3) One of following topics: Analytic Ethics, The Boundaries of Ethics, and Existential Behavior. Meets jointly with 60.354. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisite:* two courses in philosophy or permission of instructor.

60.655 PHILOSOPHY OF RELIGION (3) Study of leading contemporary movements in philosophy of religion. Meets jointly with 60.355. Usually offered alternate falls. *Prerequisite:* two courses in philosophy or permission of instructor.

60.690 INDEPENDENT STUDY PROJECT IN PHILOSOPHY (1-6)*

60.702 GRADUATE SEMINAR IN PHILOSOPHY (3-12) Intensive study of selected philosophical problems under individual direction. Multiple registrations of three semester hours each through maximum of 12 hours are permitted during a semester. Topics: History of Philosophy, Metaphysics, Logic, Epistemology, Philosophy of Science, Value Theory, Philosophy of Religion, Social Philosophy, and Eastern Philosophy. May be repeated for credit within the same term; topic must be different. Usually offered every term. *Prerequisite:* four courses in philosophy.

60.797 MASTER'S THESIS SEMINAR (3-6) Directed research of M.A. thesis proposal. May be repeated for credit within the same term. Usually offered every term. *Prerequisite:* permission of chairman.

60.799 DOCTORAL DISSERTATION SEMINAR (1-24) Directed research of Ph.D. dissertation proposal. May be repeated for credit within the same term. Usually offered every term. *Prerequisite:* permission of chairman.

RELIGION

Undergraduate Courses

61.150 BIBLICAL HEBREW SCRIPTURES (3) Emphasis upon substantive content of the Old Testament, with special attention paid to historical and cultural background of the text. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.170 INTRODUCTION TO THE NEW TESTAMENT (3) Literary, historical, and theological study of New Testament with particular attention upon Jesus, Paul, and development of Christian movement. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.180 INTRODUCTION TO RELIGIOUS THOUGHT (3) Investigation of nature of religion and of differing methodologies for study of religion with emphasis on problems of religion and society, man's attempt to understand his nature and destiny, religion and the quest for wholeness, and modern man and the question of transcendence. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

61.183 COMPARATIVE RELIGION (3) Historical-religious study of world's major religions: Shinto, Confucianism, Taoism, Buddhism, Hinduism, Islam, Christianity, Judaism, and including attention to basic problems in understanding someone else's religion. Course includes films, slide lectures, field trips, and guest lectures. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement. Usually offered every fall.

61.270 RELIGIOUS HERITAGE OF THE WEST (3) Consideration of contribution of Western religious heritage to developing ethos of Western man, from Mesopotamian, Greek, and Jewish roots through rise of Christianity and Islam to Middle Ages, Reformation, and beginnings of modern secularization process. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.300 CONTEMPORARY RELIGIOUS THOUGHT (3) Examination of major currents in nineteenth and twentieth century Jewish and Christian religious thought. Includes origins of religious existentialism, rise of modern atheism, conflict with natural and social sciences, influence of historical-critical method, development of religious liberalism, and the twentieth century reaction of neo-orthodoxy and "crisis theology." May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.305 PHILOSOPHIES OF THE EAST (3) Introduces the student to special world views of Hinduism, Buddhism, Chinese and Japanese thought, and Islam. Emphasis upon the development of individual approaches and understanding. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.306 ORIENTAL THOUGHT IN LITERATURE (3) Acclaimed literary works of the Hindus, Buddhists, Muslims, Shintoists, and others read in context of cultural, religious, and philosophical self-revelation. Includes field trips to art galleries and other types of cultural experiences, where possible, to enhance appreciation of oriental setting. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

61.320 RABBINIC MINDS AND JEWISH MYSTICS (3) Morris Gewirz Series in Jewish Thought. Classical and Medieval Judaism. Dominant motifs in rabbinic thought: God, man, and world; Torah, *Shechinah*, the rabbi, and piety. Rabbinic and medieval mysticism: *Merkabah*, Solomon Ibn Gabirol, Chassidism, and Shabbethai Zevi. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.321 MODERN JEWISH THOUGHT (3) Morris Gewirz Series in Jewish Thought. Representative currents in Jewish thought from 1800 to the present: philosophy of history (Graetz), reform (Maimon, Geiger), Zionism (Hess), mysticism (Kook, Heschel), and orthodoxy (Soloveichik). May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.330 TRADITIONAL AFRICAN THOUGHT (3) Three aims: (1) To understand the traditional African experience in areas of life values, approach to natural phenomena, explanation of life events, and cultural art forms; (2) to compare this African experience with the "Western" outlook; (3) to face the problem of the evaluation of cultural standards. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.331 JUDAISM AND CHRISTIANITY (3) Basic issues in biblical and post-Biblical literature of Judaism and Christianity (e.g. nature of covenant, messiah, kingdom-state, law, faith, etc.) May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.333 PEACE AND CHANGE: A PERSONAL AND SOCIAL EQUATION (3) Investigation of peace literature (e.g. Lao-tzu, Gandhi, Thoreau, King, et al.). Emphasizing programmatic results for individual and social change; experimentation in small groups. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.340 THE DISINHERITED MIND: MODERN RELIGION AND SECULARIZATION (3) Effects of processes of secularization on human consciousness in the nineteenth and twentieth centuries. Concept of the "disinherited mind" is explored in terms of "crisis of meaning," "fragmentation of identity," "nihilism," and "anomie." Expressions of this consciousness in philosophy, theology, art and literature are examined. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.341 RADICAL THEOLOGY AND THE SEARCH FOR A NEW RELIGIOUS LIFE-STYLE (3) Examination of contemporary religious responses to "crisis of religious meaning" in modernity. Included are radical Jewish and Christian theologies, Death of God Movement, secular and humanistic "religions," the Counter-Culture, and the interest in the occult and Eastern religions in the contemporary West. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.342 FREUD AND CULTURE (3) Study of classical psychoanalytic theory and its influence on twentieth century culture (especially in such fields as anthropology, sociology, religion, and literature). May be taken for the social sciences distribution requirement. Usually offered alternate springs.

61.343 DEPTH PSYCHOLOGY AND RELIGION (3) Exploration of influence of depth psychology on twentieth century religious understanding: seeing it both (1) as a way depth psychology has explained religion and (2) as a way contemporary thinkers (theologians and nontheologians) have sought to understand and express the integrity of religious meaning. Freudian, neo-Freudian, existential, and Jungian forms of depth psychology examined.

61.345 RELATIVISM AND MODERN RELIGIOUS THOUGHT (3) Examination of the influence of relativism and sociology of knowledge on nineteenth and twentieth century religious meaning. Emphasis placed on exploring the presuppositions of relativism in its sociological, historical, scientific, and philosophical dimensions as these have influenced theological formulation.

61.360 JESUS: PROPHET, MIRACLE-WORKER, MADMAN? (3) Attempt to develop method by which to uncover life and teachings of the historical Jesus; to compare these findings with other early and recent Jewish and Christian portraits of Jesus. May be taken for the arts and humanities distribution requirement. Usually offered alternate falls.

61.361 PAUL, THE JEW, AND EARLIEST CHRISTIANITY (3) Analysis of the life and literature of this early Christian with special emphasis upon his relation both to Pharisaic Judaism and the Hellenistic thought; modern interpretations also read. May be taken for the arts and humanities distribution requirement. Usually offered alternate springs.

61.362 THE LITERATURE OF RABBINIC JUDAISM, HELLENIZED ROMANS, AND EARLY CHRISTIAN FATHERS COMPARED (3) Typological approach through readings in Mishnah and Talmud of post-Biblical Judaism, Gnostic and Hermetic Roman literature, and early post-Biblical Christian Church Fathers; investigations of modern equivalents of these three types.

61.363 MESSIANISM AND HOPE: ANCIENT AND MODERN (3) Analysis of forms of hope in Bible, ancient (e.g. Plato, Augustine, et al.) and modern (e.g. Marx, Saint Simon, Sectarians, et al.) writers; emphasis upon roots for human hope both in evaluations of the self and society. May be taken for the arts and humanities distribution requirement.

61.370 ISLAM (3) Hundreds of millions of people adhere to Islam, described sometimes as world's fastest growing religion. Students examine historical origins, prophet Muhammad, Quran, and other formative elements underlying modern Muslim situation. Usually offered alternate falls.

61.371 THE SAINT: A SYSTEMATIC APPROACH (3) Striking segment of religious history turns on spiritual experience of gifted religious specialists, sometimes called saints. Discuss the phenomena and spirituality of sainthood comparatively to clarify the nature of this human category. Usually offered alternate springs.

61.372 THE RELIGION OF GREECE AND THE MEDITERRANEAN WORLD (3) Religion of Greece from prehistory of Byzantine times provides the focus for examination of development of religious history in Eastern and African regions of the Mediterranean. Usually offered alternate springs.

61.373 HINDUISM (3) This amazingly vital, age-old religion has more than once extended its influence to a religion of truly world-wide significance. Origins, early literature, and main expressions of Hinduism (including Yoga, Bhakti, and cult of the Divine Mother) presented. Students develop topics of their own interest. Usually offered every spring.

61.374 THE RELIGION OF LATIN AMERICA BEFORE THE CONQUEST (3) Aztec, Mayan, and Inca religious cultures flourished just prior to the time of Spanish Conquista. Aspects of this history, relevant to all American peoples, examined with some reference to American Indian religious experience outside Latin America. Usually offered alternate falls.

61.381 METHODOLOGY FOR THE STUDY OF RELIGION (3) Controversialists argue either there is or is not something unique about religion, inexplicable in other terms. Methodologies drawn both from history of religion itself and from various social sciences (sociology, anthropology, and psychoanalysis) are examined. By exploring both sides of the issue, students are aided in developing techniques for study in history of religions. May be taken for the social sciences distribution requirement or the arts and humanities distribution requirement. Usually offered alternate falls.

61.386 TOPICS IN RELIGIOUS DISCUSSION (3) Examination of important problems, thinkers, and issues in classical and contemporary religious thought. Recent offerings have included: Thought of Reinhold Niebuhr, Philosophical Theology of Paul Tillich, Thought of Rudolf Bultmann, God Talk, Problem of God, Social Scientific Study of Religion in Small Group Process, New Religious Movements, Occult World, Johannine Literature, and Prophets and Politics. May be repeated for credit, but not within the same term; topic must be different. Usually offered every term.

61.390 INDEPENDENT READING COURSE IN RELIGION (1-6)*

61.490 INDEPENDENT STUDY PROJECT IN RELIGION (1-6)*

Graduate and Advanced Undergraduate Courses

61.590 INDEPENDENT READING COURSE IN RELIGION (1-6)*

Graduate Courses

61.690 INDEPENDENT STUDY PROJECT IN RELIGION (1-6)*

61.692, 61.694 GRADUATE SEMINAR IN RELIGIOUS STUDIES (3-12), (3-12) Intensive study of selected problems in religious thought. With faculty permission, student attends undergraduate class in selected problem at time scheduled for that course. Student also meets individually with professor for additional tutorial work. Register for 61.694 if graduate degree is in Religious Studies; 61.692 has been designed for graduate students in other fields who wish to do interdisciplinary work in religious studies. Usually offered every term. *Prerequisite:* departmental permission.

61.797 MASTER'S THESIS SEMINAR (3-6) Directed research of M.A. thesis proposal. Usually offered every term. *Prerequisite:* permission of chairman.

Physical Education

CHAIRMAN Robert H. Frailey

FULL-TIME FACULTY

Professor R. H. Frailey, D. S. Geiser, V. E. Hawke (Emeritus), J. W. Hubbell

Associate Professor B. G. Coward, J. D. Frady, R. C. Karch, R. E. McFeeter, L. G. Nyce, B. J. Reimann

Assistant Professor P. Mehlert, J. R. Rogers

Through a wide variety of activity courses, the Department of Physical Education offers each student the opportunity to develop a high degree of organic and neuromuscular function; to bring about intellectual, social, and cultural learning; to develop emotional control; and to acquire skills in the life-time sports. A student wishing to major in the area of physical education will find that the distribution of courses and activities of the department will lead to preparation in various specialties, basic preparation for which is in the biological sciences, education, sociology, psychology, and

*See description under General Curriculum Information in this publication.

business administration. Emphasis is placed upon basic movement skills, individual and team sports, and upon the techniques of teaching at the elementary and/or secondary levels. The physical education major has the option of earning either a B.A. or a B.S. degree, the latter requiring prerequisites and courses for teacher certification. The student is also encouraged to explore the interdisciplinary relationship between courses of this department and those of other schools and departments of the University.

Undergraduate Programs in Physical Education

TRACKS Physical Education, Health Education, and Athletic Administration, Coaching, and Recreational Leadership.

ADMISSION TO THE PROGRAMS The major program is designed to accommodate both freshmen and transfer students. Students must be approved by the department for formal admission to the major.

Set	(1) All Tracks: 49.315.
Requirements	(2) B.S. in Physical Education: 49.210, 49.217, 49.221, 49.330, 49.335, 49.421, 49.424, 49.425, and 49.500. (3) B.A. in Physical Education: 49.221, 49.324, 49.330, 49.421, 49.424, 49.425, 49.500, and 49.550. (4) Health Education: 49.330, 49.425, and 49.510. (5) Athletic Administration, Coaching, and Recreational Leadership: 49.221, 49.324, 49.421, and 49.550.
Required Options	(1) B.S. in Physical Education: 49.100 to 49.199—(a minimum of four activities must be taken), 49.211 to 49.219 (a minimum of five units must be taken, one of which must be 49.217). (2) B.A. in Physical Education: 49.100 to 49.199 (a minimum of four activities must be taken). (3) Health Education: 49.421 (for those preparing to teach). (4) Athletic Administration, Coaching, and Recreational Leadership: 49.211 to 49.219 (a minimum of two activities must be taken).
Related Requirements	(1) B.S. in Physical Education: 09.101, 09.330–09.331, 15.130–15.131, 21.300, 21.320, 21.446, and 57.200. (2) B.A. Physical Education: 09.101, 09.330–09.331, and 15.130–15.131.
Special Opportunities	Internships in selected recreational activities for exceptional children in physical education in public and private institutions, and in specialized programs within governmental agencies.
Recommendations	The Bachelor of Science degree prepares the student to meet certification requirements for teaching physical education. The Bachelor of Arts degree offers the student competencies in the major with the exception of the professional courses.

DEGREE OBJECTIVE Students receive either a degree of Bachelor of Science or a degree of Bachelor of Arts (according to track selected) with a major in Physical Education.

Master's Program in Physical Education

ADMISSION TO THE PROGRAM This program is offered through the School of Education. To be admitted, a student must be a graduate of an accredited college or university; have an overall undergraduate grade-point average of 2.75 (on a 4.00 point scale) based on the last 60 semester hours of undergraduate work, or have demonstrated the capacity to do graduate level work; have a B average or its equivalent in physical education or education undergraduate work; and take the Graduate Record Examination or Miller Analogies Test.

Course Requirements	21.510 or 21.520, 21.790, 21.791 or 21.792, 49.500 (unless satisfactorily completed at undergraduate level), 49.560 or 49.565, 49.530, 49.610, 49.620, and any three of the following courses (if not taken to satisfy a requirement): 49.560, 49.565, 49.570, 49.550, 49.520, and 49.610.
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Special Opportunities	Internships in selected recreational activities for exceptional children, in physical education in public and private institutions, and in specialized programs within governmental agencies.
Examinations	Students must satisfactorily complete one written comprehensive examination in the field of physical education.
DEGREE OBJECTIVE	Students receive a degree of Master of Education with a major in Physical Education.

Courses of Instruction

Undergraduate Courses

- 49.100 SWIMMING I (2)** Development of basic skills and personal safety in swimming. For non-swimmers. Usually offered every term.
- 49.101 SWIMMING II (2)** Continuation of 49.100. Usually offered every term. *Prerequisite:* intermediate level.
- 49.102 LIFE-SAVING (2)** Development of safety skills, use of life-saving equipment, and techniques of swimming rescues. Usually offered every term. *Prerequisite:* 49.101 or permission of instructor.
- 49.103 SKIN-DIVING AND SURVIVAL SWIMMING (2)** Basic techniques of skin-diving and survival swimming.
- 49.104 SCUBA (2)** Techniques in use of self-contained underwater breathing apparatus. *Prerequisite:* 49.103 or permission of instructor of 49.103.
- 49.105 SPRINGBOARD DIVING (2)** Development of beginning and advanced diving skills.
- 49.106 SYNCHRONIZED SWIMMING (2)** Skills and techniques of individual figures, partner stunts, and formations; choreography and production of original routines.
- 49.107 SMALL CRAFT I (2)** Development of basic skills in small craft handling. *Prerequisite:* permission of instructor.
- 49.108 SMALL CRAFT II (2)** Continuation of 49.107. Red Cross Instructor's Certificate may be obtained. *Prerequisite:* 49.107 or permission of instructor.
- 49.110 BOWLING I (2)** Development of basic skills in bowling. Usually offered every term.
- 49.111 BOWLING II (2)** Continuation of 49.110. Usually offered every term. *Prerequisite:* 49.110 or equivalent experience in ten pin bowling.
- 49.120 KARATE I (2)** Development of basic defensive skills of karate. Usually offered every term.
- 49.122 KARATE II (2)** Continuation of 49.120 with emphasis upon karate as a sport. Usually offered every spring. *Prerequisite:* 49.120 or permission of instructor.
- 49.124 WRESTLING (2)** Development of wrestling skills.
- 49.140 FENCING I (2)** Development of basic skills of foil fencing. Usually offered every term.
- 49.141 FENCING II (2)** Continuation of 49.140 with emphasis upon competition. Usually offered every spring. *Prerequisite:* 49.140 or permission of instructor.
- 49.150 GOLF I (2)** Development of basic skills of golf. Usually offered every term.
- 49.151 GOLF II (2)** Continuation of 49.150 with emphasis upon actual participation on the golf course. Usually offered every term. *Prerequisite:* 49.150 or prior instruction.
- 49.160 TRAMPOLINE AND FLOOR EXERCISE I (2)** Development of basic skills of trampoline, tumbling, and floor exercise. Usually offered every fall.
- 49.161 TRAMPOLINE AND FLOOR EXERCISE II (2)** Continuation of 49.160. Usually offered every spring. *Prerequisite:* 49.160 or permission of instructor.
- 49.162 GYMNASTICS/APPARATUS I (2)** Development of basic skills of gymnastic apparatus work. Usually offered every fall.

49.163 GYMNASTICS/APPARATUS II (2) Continuation of 49.162. Usually offered every spring. *Prerequisite:* 49.162 or permission of instructor.

49.170 RECREATIONAL ACTIVITIES (2) Development of skills of selected individual, dual and team activities with emphasis upon seasonal sports. Content varies. May be repeated for credit within the same term; topic must be different.

49.171 HORSEBACK RIDING (2) Development of equestrian skills. May be repeated for credit, but not within the same term; content of instruction must be different. Usually offered every term.

49.174 FOLK AND SQUARE DANCE (2) Development of skills and understanding of dances of various cultures including ethnic dances of this country.

49.180 TENNIS I (2) Development of basic skills of tennis. Usually offered every term.

49.181 TENNIS II (2) Continuation of 49.180. Usually offered every term. *Prerequisite:* 49.180 or permission of instructor.

49.182 TENNIS III (2) Continuation of 49.181. For advanced players. Usually offered every spring. *Prerequisite:* 49.181 or permission of instructor.

49.190 FITNESS WORKSHOP I (2) Usually offered every term.

49.191 FITNESS WORKSHOP II (2) Continuation of 49.190. Usually offered every spring. *Prerequisite:* 49.190 or permission of instructor.

49.195 WEIGHT TRAINING (2) Development of weight training skills. Usually offered every term.

LECTURE COURSES

49.210 METHODS AND MATERIALS IN PHYSICAL EDUCATION (4) Principles and techniques of instruction applicable to physical education at elementary and secondary school levels. Includes laboratory work. Usually offered every spring.

49.211 TECHNIQUES OF HOCKEY/PHYSICAL CONDITIONING (2) Development of skills, techniques, and methods of teaching each activity. Usually offered alternate falls.

49.212 TECHNIQUES OF SOCCER/VOLLEYBALL (2) Development of skills, techniques, and methods of teaching each sport, including rules and organization. Usually offered alternate falls.

49.213 TECHNIQUES OF BASKETBALL/SOFTBALL (2) Development of skills, techniques, and methods of teaching each sport including rules and team organization. Usually offered alternate springs.

49.214 TECHNIQUES OF GYMNASTICS/TRACK AND FIELD (2) Development of skills, techniques, and methods of teaching each activity. Usually offered alternate springs.

49.215 METHODS OF TEACHING SWIMMING (2) Development of skills, techniques, and methods of teaching swimming and coaching. Usually offered alternate springs. *Prerequisite:* permission of instructor.

49.216 TECHNIQUES OF FOOTBALL/WRESTLING (2) Development of skills, techniques, and methods of teaching each sport including rules and team organization. Usually offered alternate falls.

49.217 METHODS OF TEACHING INDIVIDUAL, DUAL, AND RECREATIONAL ACTIVITIES (2) Development of skills, techniques, and methods of teaching individual and dual sports and recreational activities. Usually offered every fall. *Prerequisite:* 49.210 or permission of instructor.

49.218 TECHNIQUES OF OFFICIATING (2) Rules and officiating techniques of selected sports. Supervised practice in officiating.

49.221 FOUNDATIONS AND HISTORY OF PHYSICAL EDUCATION AND SPORT (3) Introduction to professions of health education, physical education, and recreation. Historical growth and development of physical education and competitive sport. Usually offered every spring.

49.301 WATER SAFETY (3) Preparation for teaching swimming and diving. Techniques of aquatic safety leading to Red Cross Water Safety Instructor's Certificate. Usually offered every spring. *Prerequisite:* senior life saving.

49.310 ELEMENTARY SCHOOL RHYTHMIC ACTIVITIES (3) Survey of materials and methods of teaching fundamental movement rhythms and singing games at elementary school level. Usually offered every fall.

49.315 CARE AND PREVENTION OF ATHLETIC INJURIES (4) Introduction to the basic concepts and techniques in the prevention, treatment, and rehabilitation of sports injuries; implications for conducting adapted physical education program at secondary school level. Practical application of first aid therapeutic measures. Usually offered every spring.

49.324 PRINCIPLES AND PSYCHOLOGY OF COACHING (3) Principles and techniques of coaching athletic teams; emphasis on psychology of teaching and motivating athletes. Usually offered every fall.

49.330 HEALTH AND SAFETY (3) Fundamentals of health education for prospective teachers. Usually offered every fall.

49.335 ELEMENTARY SCHOOL MOVEMENT EDUCATION (3) Survey and application of physical education instruction and movement exploration for elementary school children. Usually offered every spring.

49.340 CAMPING AND OUTDOOR EDUCATION (3) Philosophical bases of camp instruction and outdoor education and implications for curriculum. Theory and practice of techniques for camping. Field trips and observations arranged. *Prerequisite:* permission of instructor.

49.350 SAILING AND SEAMANSHIP (3) Principles and techniques of sailing and seamanship with emphasis on special skills relating to navigation, small and large boat handling, environmental and marine protection, and use of public boating facilities. Usually offered every term.

49.390 INDEPENDENT READING COURSE IN PHYSICAL EDUCATION (1-6)*

49.421 ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION, AND ATHLETICS (3) Principles of organizing and administering health, physical education, and athletic programs. Consideration of personnel, schedules, equipment, facilities, curriculum, and related problems. Usually offered every fall.

49.424 KINESIOLOGY (3) Mechanical principles as they apply to performance of motor skills, and physiological changes as they occur in the body during and after activity. Usually offered every fall.

49.425 PHYSIOLOGY OF EXERCISE (3) Study of physical and biochemical phenomena that are associated with exercise. Usually offered every spring.

49.490 INDEPENDENT STUDY PROJECT IN PHYSICAL EDUCATION (1-6)*

Graduate and Advanced Undergraduate Courses

49.500 MEASUREMENT AND EVALUATION IN HEALTH AND PHYSICAL EDUCATION (3) Purposes and principles of measurement and evaluation in health and physical education. Survey of selected tests and basic statistical techniques for interpretation of results. Usually offered every fall.

49.510 HEALTH EDUCATION (3) Survey and interpretation of current trends and thinking in health education. Usually offered alternate springs.

49.520 CURRENT PROBLEMS, TRENDS, AND RESEARCH IN PHYSICAL EDUCATION (3) Identification of current problems in the profession and a survey and interpretation of research and trends pertaining to them. Content varies with each semester. May be repeated for credit within the same term; topic must be different.

49.530 CURRICULUM IN PHYSICAL EDUCATION (3) Principles and procedures of curriculum development in physical education.

49.550 RECREATION PROGRAMS (3) Survey of agencies and programs in field of recreation with attention to principles and techniques for conducting these programs. Usually offered every fall.

49.560 PSYCHOLOGY OF SPORT (3) Investigation of behavioral patterns of people in a variety of athletic and physical activity settings.

49.565 SOCIOLOGY OF SPORT (3) Investigation of sport as a socio-cultural phenomenon. Usually offered every spring.

49.570 ELEMENTARY PHYSICAL EDUCATION (3) Investigation of new and innovative methods and materials in teaching basic movement through motor, manipulative, and stability skills at the elementary school level.

* See description under General Curriculum Information in this publication.

49.590 INDEPENDENT READING COURSE IN PHYSICAL EDUCATION (1-6)***Graduate Courses**

49.601 WORKSHOP IN HEALTH, PHYSICAL EDUCATION, AND RECREATION (3) Investigation of a specific timely topic in the area of health, physical education, or recreation. Content varies with each semester. May be repeated for credit within the same term; topic must be different.

49.610 PLANNING FACILITIES FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION (3) Principles, criteria, and standards used in planning facilities for health, physical education, and recreation.

49.620 PHILOSOPHY OF PHYSICAL EDUCATION (3) Exploration in depth of eclectic rationale of physical education.

49.690 INDEPENDENT STUDY PROJECT IN PHYSICAL EDUCATION (1-6)***Physics**

CHAIRMAN Richard B. Kay

FULL-TIME FACULTY

Professor R. Berendzen, E. Callen, B. T. Chertok, M. Harrison, R. B. Kay, H. Reiss, R. Segnan, R. V. Waterhouse, J. A. White

Associate Professor H. Leidecker, Jr.

Senior Research Scientist Z. Bay

Two undergraduate degrees are offered by the Department of Physics: the B.A. and the B.S.

The B.A. is designed to meet the needs of students interested in an interdisciplinary approach to the problems of the environment, resources, technology and economic growth, arms control, science and public policy, philosophy of science, audio technology, and the physics of the arts. The Department of Physics offers courses which combine a physicist's approach with that used in other disciplines.

The B.S. program prepares the student for either (a) general positions in government and industry which cover a wide range of scientific interests, or (b) admission to graduate school for continued education in physics at the M.S. and Ph.D. levels.

The department also offers the M.S. and Ph.D. degrees. Physics faculty are currently doing research in light scattering and critical phenomena, quantum electronics, Mössbauer spectroscopy, science education, amorphous magnetism, high energy nuclear scattering (at SLAC), statistical mechanics, acoustics, air pollution monitoring, atomic interactions, and high intensity quantum electrodynamics.

Students benefit from small classes, study areas, personal faculty relationships, and early involvement in faculty research projects.

Undergraduate Program in Physics: Bachelor of Arts

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Formal admission to the program requires a 2.00 grade-point average and approval of the department undergraduate advisors.

Required Options 51.210 or 51.218-51.219. At least three courses from the following are required: 51.101, 51.203, 51.204, and 51.205.

Three additional courses at the 300-level or above should be chosen in consultation with the student's advisor.

Related Requirements Appropriate courses in mathematics, chemistry, biology, and in the Center for Technology and Administration program.

Special Opportunities Cooperative Education Program with agencies and laboratories in the Washington area.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Physics.

* See description under General Curriculum Information in this publication.

Undergraduate Program in Physics: Bachelor of Science

ADMISSION TO THE PROGRAM The department counsels freshmen and transfer students. Formal admission to the program requires a 2.00 grade-point average and approval of the department undergraduate advisors.

Set Requirements 51.220, 51.221, 51.222, 51.223, 51.330, 51.350, 51.370, and 51.452. Note: 51.220 and 51.221 may be waived by students with exceptional high school preparation.

Required Options 51.560 or 51.565.

Related Requirements 15.120, 15.121, 15.130, and 15.131 or equivalents; 41.110, 41.111, 41.222, and 41.223.

Recommendations 51.530, 51.551, 51.570, 51.572, 51.573, 51.574, 41.321, 41.550, and 41.551 are recommended for graduate preparation; 09.101, 09.102, 40.280, and 40.281 or equivalents are recommended for all students.

Special Opportunities Cooperative Education Program with agencies and laboratories in the Washington area.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Physics.

Master's Program in Physics

ADMISSION TO THE PROGRAM Approval of the department graduate advisors is required. Two letters of recommendation are required unless the previous degree was earned in the department. The department counsels entering graduate students.

Course Requirements A minimum of 30 semester hours to include: 41.550, 41.551, 51.530, 51.551, 51.560 or 51.565, and 51.570, plus two elective courses at the 500-level or selected from among the following: 51.631, 51.651, 51.670, and 51.671.

Examinations Two written comprehensive examinations: 51.001 Mechanics, Thermal and Statistical Physics, Mathematical Physics; 51.002 Electromagnetism, Quantum Mechanics, Applications.

Thesis An approved thesis (51.797) or six semester hours of advanced work approved by the department graduate advisors.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Physics.

Doctoral Program in Physics

ADMISSION TO THE PROGRAM Approval of the department graduate advisors is required. Two letters of recommendation are required unless the previous degree was earned in the department. The department counsels entering graduate students.

Course Requirements A minimum of 72 semester hours of graduate work to include: 51.631, 51.651, 51.670–51.671, and a minimum of 12 semester hours of 51.799 (see Dissertation below).

Advancement to Candidacy Completion of the qualifying examination and approval of the dissertation proposal by the department graduate advisors.

Tools Proficiency in a language or computer science, or another tool deemed appropriate by the student's dissertation committee.

Examinations The M.S. comprehensive examinations, 51.001 and 51.002, both passed with distinction. Four approved comprehensive examinations: 51.005, 51.006, 51.007, and 51.008 (oral) covering the subject area of the dissertation and material relevant to the area of research. The examinations 51.001 and 51.002 may be substituted for 51.005.

Dissertation The dissertation should be prepared in consultation with the student's dissertation committee and must be approved by that committee and the department graduate advisors.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Physics.

Courses of Instruction

Undergraduate Courses

51.101 SOUND LIGHT AND THE ARTS (3) Sound and hearing; music: traditional, electronic, and rock; light and vision; color, images, eye, and the camera; recording and reproduction of sound and light; the broadcast media. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* lively curiosity.

51.104 SOUND AND MUSIC (3) Nature of sound, musical sound and noise, hearing and the ear, noise pollution, traditional musical instruments, electronic music, hi-fi stereo, and quadraphonic. May be taken for the natural and mathematical sciences distribution requirement. *Prerequisite:* lively curiosity.

51.106 ASTRONOMY (3) How big is the universe? What is in it? How old is it and how long will it endure? Is there (other) intelligent life in space? Nonmathematical discussion of relativity theory, normal stars, pulsars, and black holes. Space travel and contact among galactic civilizations. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite:* lively curiosity.

51.201 FUNDAMENTALS OF AUDIO TECHNOLOGY (3) Anatomy of audio components; generation, transmission and detection of sound; properties of sound; electricity and magnetism with applications to transducers, preamplifiers, amplifiers, tuners, and tape decks; electromagnetic waves, AM, FM, and PM modulation, elements of AM and FM tuners. May be taken for the natural and mathematical sciences distribution requirement. *Prerequisite:* permission of instructor.

51.203 SCIENCE AND PUBLIC AFFAIRS (3) Authoritarianism (religion and "communism") vs. science; Einstein, A-bombs, and NASA; population, pollution, and politics; public health, morals, birth control, abortion, artificial insemination, and eugenics; XYY, organ transplants, and drugs; electronic surveillance and rights of privacy; computers and data banks; traffic. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* lively concern.

51.204 POPULATION, RESOURCES AND THE ENERGY CRISIS (3) Population growth: models of population evolution; energy resources: fossil fuels, nuclear fission and fusion power, and solar energy; air and water resources; climate alterations, planned and unplanned; food resources; the "green revolution," food from the sea, pesticides, and fertilizers. May be taken for the social sciences distribution requirement. *Prerequisite:* a lively concern.

51.205 ARMS CONTROL, POLITICS AND SCIENCE (3) The military, technology, and national security—an historic view; nuclear and thermonuclear weapons; the cold war and the strategic arms race; LTB treaty, a case study; the present controversy on ABM and MIRV systems; SALT; the political and economic aspects of armament and disarmament. May be taken for the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* lively concern.

51.206 PHYSICS AND PARAPHYSICS (3) Science has two major dimensions: content and process. Focuses on the process of science as applied to parapsychological topics including ESP, Kirlian photography, astrology, biorhythms and biofeedback, and plant communication. The validity of these phenomena is tested by objective experimentation in the laboratory.

51.210 PHYSICS: THE WAY THINGS WORK (3) The basic concepts of physics applied to the automobile and other forms of transportation, home heating, electrical appliances, communication systems, and other applications in everyday life. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term.

51.218 ELEMENTS OF COLLEGE PHYSICS WITHOUT CALCULUS I (3) Basic physical concepts in the structure of matter and the macroscopic world; mechanics and electricity, atomic physics, waves and oscillations, molecules and heat. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall.

51.219 ELEMENTS OF COLLEGE PHYSICS WITHOUT CALCULUS II (3) Basic physical concepts in structure of matter and macroscopic world; electromagnetism, light, relativity, nuclear physics, and structure of solids. May be taken for natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 51.218.

51.220 INTRODUCTION TO UNIVERSITY PHYSICS WITH CALCULUS I (3) Basic physical concepts in the structure of matter and the macroscopic world; mechanics and electricity, atomic physics, waves and oscillations, and molecules and heat. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite:* 41.110, 41.111.

51.221 INTRODUCTION TO UNIVERSITY PHYSICS WITH CALCULUS II (3) Basic physical concepts in structure of matter and macroscopic world; electromagnetism, light, relativity, nuclear physics, and structure of solids. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 51.220, 41.111.

51.222 OPEN LABORATORY IN PHYSICS I (2) Selected experiments to accompany 51.220. Experiments partially selected according to student's interest and performed weekly at a time convenient to the student, during the open hours of the laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite:* 51.220 or 51.218 or concurrent registration.

51.223 OPEN LABORATORY IN PHYSICS II (2) Selected experiments to accompany 51.221. Experiments partially selected according to student's interest and performed weekly at a time convenient to the student, during the open hours of the laboratory. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every spring. *Prerequisite:* 51.221 or 51.219 or concurrent registration.

51.312 NUCLEAR ENERGY (3) Need and the problem; nuclear power in year 2000; physical description of nuclear fission, fusion, and radioactivity; technology of reactors; radiation as environmental problem; prospects for controlled thermonuclear fusion reactors. May be taken for the natural and mathematical sciences distribution requirement.

51.330 BASIC CONCEPTS IN MECHANICS (3) Vector analysis. Newton's laws and dynamics of particles. Harmonic oscillator. Conservative systems. Gravitational forces and potential. Central fields and the motions of planets and satellites. Usually offered every fall. *Prerequisite:* 51.221; either 41.111 or 41.222 or concurrent registration.

51.350 BASIC CONCEPTS IN ELECTROMAGNETISM (3) Electrostatics, potential theory, magnetic fields, Faraday and Ampere's laws, dielectric magnetic media, and Maxwell's equations. Usually offered every fall. *Prerequisite:* 51.330 or concurrent registration.

51.370 BASIC CONCEPTS IN MODERN PHYSICS (3) Electrons, protons and structure of matter, a historic view; the Rutherford-Bohr atom, elements of quantum mechanics and its applications to atomic, nuclear, and solid state physics. Usually offered every spring. *Prerequisite:* 51.330.

51.390 INDEPENDENT READING COURSE IN PHYSICS (1-6)*

51.452 ADVANCED LABORATORY (3) Lectures and laboratory experience. Students plan and complete experiments in electronics and other laboratory techniques that fit background and previous training. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall. *Prerequisite:* permission of instructor.

51.490 INDEPENDENT STUDY PROJECT IN PHYSICS (1-6)*

Graduate and Advanced Undergraduate Courses

51.530 MECHANICS (3) Newtonian dynamics; Hamilton's principle and Lagrange's equations; central force motion; rigid body dynamics; oscillating motion; Hamilton's equations and phase space; Hamilton-Jacobi equation. Usually offered every fall. *Prerequisite:* 51.330.

51.531 WAVES, OSCILLATIONS AND ACOUSTICS (3) Vibrating systems and dynamical analogies. Solutions of wave equation in various coordinate systems. Radiation, reflection, refraction, and diffraction of waves. Transients and random noise. *Prerequisite:* 51.330, 41.321.

51.551 ELECTROMAGNETISM (3) Maxwell's equations and electromagnetic waves, reflection and refraction, interaction of light with matter, interference phenomena, and Huygen-Kirchoff diffraction theory. Fresnel and Fraunhofer diffraction, grating, and optical instruments. *Prerequisite:* 51.350.

51.560 BASIC CONCEPTS IN THERMODYNAMICS (3) Thermal properties of gaseous and condensed phases of matter. Heat, temperature, the first and second laws of thermodynamics, reversibility, entropy, thermodynamic potentials, changes of phase, and kinetic theory of gases. Usually offered alternate springs. *Prerequisite:* 51.350.

51.565 BASIC CONCEPTS IN STATISTICAL PHYSICS (3) Statistical description of matter. Distribution functions, phase space, ensembles, statistical interpretation of thermodynamics, effects of quantization, Maxwell-Boltzman, Fermi-Dirac, and Bose-Einstein statistics. Usually offered alternate springs.

*See description under General Curriculum Information in this publication.

51.570 INTRODUCTION TO QUANTUM MECHANICS (3) Wave mechanics; Schroedinger equation; potential barriers and potential wells; harmonic oscillator; operators; eigenfunctions; eigenvalues; degeneracies; angular momentum; hydrogen atom. Usually offered every fall. *Prerequisite:* 51.370.

51.572 ATOMIC PHYSICS (3) Review of elementary quantum mechanics, time independent and time dependent perturbation theory, magnetic moments, spin, identical particles, multielectron atoms, transition rates and selection rules, and collision theory. *Prerequisite:* 51.570.

51.573 NUCLEAR PARTICLE PHYSICS (3) Systematic presentation of physics of nuclei and nucleon and their interactions. Includes the two-nucleon force, systematics of stable nuclei, radioactivity, and the fundamental interactions. *Prerequisite:* 51.570.

51.574 INTRODUCTION TO SOLID STATE PHYSICS (3) Crystallography, lattices, thermal properties of solids, free electron theory of metals, band theory of solids, conductivity of metals, insulators and semiconductors, dielectric and magnetic properties, and superconductors. *Prerequisite:* 51.570.

51.590 INDEPENDENT READING COURSE IN PHYSICS (1–6)*

Graduate Courses

51.631 THEORETICAL MECHANICS (3) Elasticity, fluid mechanics and acoustics, relativistic mechanics, Hamiltonian mechanics and canonical transformations, Hamilton-Jacobi theory, and Lagrangian and Hamiltonian densities. *Prerequisite:* 51.530.

51.651 ELECTROMAGNETIC THEORY (3) Electric and magnetic fields, boundary value problems, dielectric, and magnetic media, Maxwell's equations, radiation and propagation of electromagnetic waves. Relativistic formulation of fields and potentials, Lienard-Wiechert potentials, dispersion, scattering, diffraction, and physical optics. Usually offered every fall. *Prerequisite:* 51.551.

51.670 QUANTUM MECHANICS I (3) Experimental background to quantum mechanics, Schroedinger equation, eigenfunctions and eigenvalues, one-dimensional problems; WKB approximations; general principles of wave mechanics; central potentials, hydrogen atom, scattering. Usually offered every fall. *Prerequisite:* 51.572 or concurrent registration.

51.671 QUANTUM MECHANICS II (3) General formalism of quantum theory; angular momentum and spin; identical particles; stationary perturbations, time-dependent perturbation theory, and variational method. Usually offered alternate springs. *Prerequisite:* 51.670.

51.690 INDEPENDENT STUDY PROJECT IN PHYSICS (1–6)*

51.710 SOLID STATE PHYSICS I (3) Lattice periodicity, Bloch's theorem, lattice vibrations, energy bands, Fermi statistics. Pauli paramagnetism, Hartree and Hartree-Fock equations, screening, plasma oscillations, dielectric function and impurity states. *Prerequisites:* 51.560, 51.573, 51.671.

51.711 SOLID STATE PHYSICS II (3) Group theory, Boltzman equation, electrical conductivity, Hall effect, megneto-resistance, de Haas-van Alphen oscillations, magnetism, and superconductivity. *Prerequisite:* 51.710.

51.720 ADVANCED QUANTUM MECHANICS I (3) Lorentz group; Dirac and Klein-Gordon equation, Lorentz covariance; S-matrix, propagator theory, Feynman diagrams; applications; formal theory of scattering. *Prerequisite:* 51.671.

51.721 ADVANCED QUANTUM MECHANICS II (3) Lagrangian field theory; quantization of free fields, interactions; S-matrix theory, covariant perturbation theory, applications to quantum electrodynamics and meson problems; dispersion relations; renormalization. *Prerequisite:* 51.720.

51.724 NUCLEAR THEORY I (3) Invariants, the deuteron, nucleon-nucleon problem, effective-range theory, nucleon-electron interaction, nucleon-nucleus interactions at low and high energies, and the electromagnetic interaction including isotopic spin. *Prerequisites:* 51.573, 51.671.

51.725 NUCLEAR THEORY II (3) Nuclear shell model, many body theory of nuclei with correlations, Hartree-Fock equation and quasi particles, collective nuclear motion, nuclear reactions including U- and R-matrix methods and pion physics. *Prerequisite:* 51.724.

51.780 RESEARCH SEMINAR IN PHYSICS (3–6) Various topics in advanced physics with contents selected according to need. May be repeated for credit either within the same term with a different content/topic or not within the same term, but with the same content/topic. *Prerequisite:* permission of instructor.

* See description under General Curriculum Information in this publication.

51.797 MASTER'S THESIS SEMINAR (1-6)

51.799 DOCTORAL DISSERTATION SEMINAR (1-6)

Pre-Engineering

PRE-ENGINEERING ADVISORY COUNCIL R. E. McFeeter (Associate Dean for Undergraduate Affairs), F. Carson (Chemistry), B. Clark (Biology), R. Segnan (Physics), D. Gomberg (Computer Science), H. Wilson (Mathematics).

For the many students studying in the fields of mathematics, physics, chemistry, biology, and distributed sciences who are potential engineering students, The American University has established cooperative five-year programs with the School of Engineering and Applied Science, Washington University, St. Louis, Missouri, and with the College of Engineering, University of Maryland. Students spend three years on The American University campus concentrating in one of the major fields in the College of Arts and Sciences. Students must work very closely with a faculty advisor and seek counsel from the Department of Mathematics, Statistics, and Computer Science, the science departments, or the dean's office. If the designated official at The American University recommends the student, there is guaranteed admission to the engineering program after the completion of the junior year. After a satisfactory fourth year at the cooperating engineering school, the bachelor's degree is awarded by The American University. The fifth year provides for the completion of a second major in one of the engineering fields.

Undergraduate Cooperative Engineering Program with Washington University

MAJORS A student aspiring to the profession of engineering is advised to major in either mathematics or science. Although the University has a cooperative program, it has no formal engineering major.

ADMISSION TO THE PROGRAM The Sever Institute of Technology of the School of Engineering and Applied Science at Washington University will consider a student only if he has 60 semester hours of transferrable credit with a minimum grade point average of B—, and is recommended by the designated official at The American University.

Set Requirements	Two courses of English composition; calculus through differential equations; physics in a two course sequence employing calculus, including laboratory; chemistry in a two course sequence, including laboratory; at least 18 semester hours of humanities and social sciences; at least 9 hours in one department, including one area of concentration at the junior or senior level.
Required Options	One course of computer programming for all but electrical engineers. Two course sequence in organic chemistry required for chemical engineering only.
Related Requirements	If the one upper level area of humanities or social sciences has not been completed, there will be some elective opportunities in each major curriculum during the last two years.
Recommendations	A student interested in pre-engineering should consult the Associate Dean for Undergraduate Affairs for counseling and assignment to an appropriate advisor no later than the end of the freshman year. Basic courses must be completed satisfactorily during the first three years of study in order to be able to complete the requirements for an engineering degree in five years.
Special Opportunities	A student may also plan for additional combined degree programs, such as B.A.-B.S.-M.S. and B.A.-B.S.-M.B.A., by allowing six years for such programs.

DEGREE OBJECTIVE After a satisfactory fourth year at Washington University, a student receives a bachelor's degree with a major in the previously declared field from The American University.

NOTE ALSO Courses with grades below C will not transfer to Washington University. All curricula are recognized and accredited by the Engineers Council for Professional Development except that of

applied mathematics and computer science which is not recognized as an engineering area and hence not included in the accreditation.

Undergraduate Dual-Degree Program with the University of Maryland

MAJORS A student aspiring to the profession of engineering is advised to major in mathematics or science. Although the University has a cooperative program, it has no formal engineering major.

ADMISSION TO THE PROGRAM Admission to the College of Engineering of the University of Maryland is guaranteed to the dual-degree student who has (1) completed the recommended dual-degree program at The American University with a cumulative grade-point average of 2.00 or better and (2) is recommended by the designated official at The American University.

Set Requirements	One year of general chemistry with laboratory; two or three years of mathematics, including calculus and differential equations; two years of physics, including a year of general physics with laboratory and more in-depth study in mechanics and in electromagnetism or thermodynamics; one course in computer programming; two courses in English composition; and at least five courses in humanities and social sciences.
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Required Options	A student who wishes to major in chemical engineering should also include a year of organic chemistry.
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Recommendations	A student interested in pre-engineering should consult the Associate Dean for Undergraduate Affairs for counseling and assignment to an appropriate advisor no later than the end of the freshman year. Basic courses must be completed satisfactorily during the first three years of study in order to be able to complete the requirements for an engineering degree in five years.
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DEGREE OBJECTIVE After a satisfactory fourth year at the University of Maryland, a student receives a bachelor's degree with a major in the previously declared field from The American University.

NOTE ALSO A student who enters the University of Maryland in the dual-degree program will have all credit which is applicable to The American University degree transferred to the College of Engineering. A student at The American University is advised that 30 semester hours with grades of C (2.00) or better from the College of Engineering, University of Maryland, will be acceptable on transfer to fulfill The American University undergraduate requirements.

Pre-Law

PRE-LAW ADVISING College of Arts and Sciences Office of the Dean—Academic Counselors; College of Arts and Sciences Departmental Faculty Advisors

It is important that the pre-law student understand law schools' educational philosophy. As the *Law School Admission Bulletin* states:

"Any course, regardless of field, that helps you develop clear and systematic thinking, command of the English language, and a broad understanding of our society constitutes sound preparation for the study of law. Thus, law schools do not recommend specific undergraduate majors for pre-law students."

The pre-law student should also realize that admission to law school is highly selective. A student contemplating a career in law should plan his undergraduate study so that he acquires a solid academic background. To enter the profession he should be a scholar who plans to continue learning throughout his lifetime.

Undergraduate Program in Pre-Law

MAJORS The student aspiring to the profession of law may select any major he wishes. The University has no prescribed pre-law major.

ADMISSION TO THE PROGRAM The student interested in pre-law training follows the normal procedure for declaring a major in one of the schools or departments or in gaining approval of an interdisciplinary program of study.

Set Requirements

By the end of his sophomore year, the pre-law student chooses an academic major. He must satisfy the requirements, related fields, and tool subjects in this major as specified by his department or approved as a valid interdisciplinary program. Whatever the choice of major, the pre-law student should undergird his major program with a broad distribution of courses in mathematics, natural sciences, social sciences, and the humanities.

Required Options

Course requirement options would depend on the major the student chooses.

Recommendations

Courses recommended by law schools include literature and upper-level writing courses; history, political science, accounting, economics, mathematics, or any other courses demanding analytical thinking or verbal proficiency. Past experience indicates that some students have found 60.100, 42.202, 10.201, and 17.110 to be helpful.

The Law School Admission Test (LSAT) is required of every applicant to law school. It is strongly recommended that this test be taken in July before the senior year. With this test date, the student can get an idea of his prospects and possibly retake the examination in October or, if necessary, make some alternative plans. The student may register through the University Counseling Center to take the test on The American University campus. He should register six weeks before test date. The *Law School Admissions Bulletin*, available in the University Counseling Center, and in the Office of the Dean, College of Arts and Sciences, answers many questions concerning law schools. The *Pre-Law Handbook* is helpful in describing law schools and their requirements. This handbook is available in the Office of the Dean and in The American University Bookstore.

Only the student with a very high cumulative grade-point average and a high LSAT score should consider law school. If a student's grade-point average (through his junior year) is less than 3.00 and his LSAT scores are below 1200, he should be thinking of alternatives to law school.

Special Opportunities

Prior to each LSAT, the University sponsors an LSAT Workshop. This seven-session workshop is a review course for the type of material that the test will cover: mathematics, logic, business decisions, reading skills, and writing skills, plus "test-wiseness," dealing with the anxiety of the test situation and the importance of setting up alternatives. The LSAT Workshop is limited to 15 persons; there is a nominal fee to cover materials.

DEGREE OBJECTIVE Students receive a bachelor's degree with a major in the field of the student's choice.

Pre-Medicine and Pre-Dentistry

PREPROFESSIONAL ADVISORY COMMITTEE T. S. Cantrell (Chemistry), R. Kay (Physics), W. Schoenfisch (Biology)

Careers in medicine, dentistry, and veterinary medicine require a bachelor's degree plus a graduate medical degree. Most pre-medicine, pre-dentistry, or pre-veterinary students take an undergraduate major in one of the sciences, although with careful planning a student can major in any discipline. Nationally, and at The American University, approximately 30% of the students gain entrance to a professional school. Thus a student should recognize that admission to medical school is highly selective and he or she should always be prepared, with the help of personal counseling and program advising, to select reasonable alternatives as career objectives. Faculty members on the Preprofessional Advisory Committee provide academic guidance and assist the student in seeking admission to a medical school upon graduation.

Undergraduate Programs in Pre-Medicine and Pre-Dentistry

MAJORS The basic pre-medical pattern applies to pre-dental students, as well as to others interested in veterinary medicine and related fields. The professional schools require a minimum of

three years of undergraduate studies and strongly recommend completion of the bachelor's degree. A pre-medical or pre-dental program may be carried out in connection with a major course of study in any discipline of the student's choosing.

ADMISSION TO THE PROGRAM The interested student follows the normal procedure for declaring a major.

Set Requirements

(1) *Freshman Year* (a) fall semester: 09.101, 15.120, 15.121, 23.100, and 41.100; (b) spring semester: 09.102, 15.130, 15.131, 23.101, and 41.101;

(2) *Sophomore Year* (a) fall semester: 15.310, 15.312, 51.220, 51.222, and electives. (b) spring semester: 15.320, 15.322, 51.221, 51.223, and electives.

Required Options

Electives should be chosen in consultation with the advisor.

Students adequately prepared to take 41.101 or 41.111 are advised to substitute one of these for 41.100. Consult advisor for selection of appropriate mathematics courses. Students taking either 41.101 or 41.111 would take either 41.102 or 41.222 in the spring semester.

Related Options

Depends on the major.

Recommendations

It is strongly recommended that students take all of the above courses during their first two years of study. In this way, they are better prepared to take the Medical College Admission Test (MCAT) at the end of their second year of college or at the beginning of the third year. Medical schools take note of the sequence and timing of courses taken in the pre-medical program. They look with scepticism on programs which delay important course work such as a sophomore level physics course or organic chemistry into the senior year of study. Further, the closer together the core material is taken, the more organized the student can be in taking the MCAT tests. The Association of American Medical Colleges (AAMC) publishes an *Admissions Requirement Handbook* on premedical programs and the requirements for admission to AAMC approved medical schools. Students are urged to study a copy of this publication which may be ordered through the Association of American Medical Colleges, 1 Dupont Circle, N.W., Washington, D.C., 20036.

DEGREE OBJECTIVE Students receive a bachelor's degree with a major in the field of their choice.

Psychology

CHAIRMAN Elliott McGinnies

FULL-TIME FACULTY

Professor J. J. Boren, C. B. Ferster, A. Leventhal, E. McGinnies, M. Rioch (Emeritus), S. J. Weiss
Associate Professor A. Berman, J. J. Gray, B. McCarthy, A. Silberberg, B. M. Slotnick
Assistant Professor S. R. Parker, A. L. Riley, C. Weissbrod, B. Yates

The undergraduate program in the Department of Psychology is designed to offer the student the opportunity to appreciate psychology's diversity and its applications. Courses are offered in clinical, social, developmental, and experimental psychology. Advanced special topic courses in these and related areas are frequently available. Students may design programs that approach psychology as a social science, a natural science, or some combination of the two. Advanced students have the opportunity to become actively involved in social and experimental research, in the design and analysis of experiments, and in paraprofessional counseling. During their junior and senior years, majors are encouraged to take small specialized seminars and engage in supervised independent study. Undergraduate majors also have opportunities for internship-type experience with community mental health agencies and to participate in ongoing research within the department. The program is sufficiently flexible and broad to satisfy specific career goals and to provide a solid background for graduate study.

AFFILIATIONS Washington, D.C., Veterans Administration Hospital, Baltimore Veterans Administration Hospital, St. Elizabeth's Hospital, Community Psychiatric Center (Bethesda), Georgetown University Hospital (Department of Pediatrics), Kennedy Institute (Baltimore), Children's Hospital, Psychiatric Institute (New York City), McLean Hospital (Boston), Veterans Administration Hospital (Prescott, Arizona) University of Oregon Medical School, Institute for Behavioral Research, Catholic University Department of Psychology, Cleveland University Hospital (Case Western Reserve), and Area "B" Community Mental Health Center.

Undergraduate Program in Psychology

ADMISSION TO THE PROGRAM Students must apply to, and be approved by, the department for formal admission to the major.

Required Options Either 57.100 or 57.110 and at least nine additional courses totaling at least 29 semester hours in the Department of Psychology. Only 6 semester hours of 57.317, 57.390, 57.490, 57.405, or 57.507 may be applied toward the major requirement. Students must also complete a minimum of 60 semester hours outside of psychology.

Related Requirements 42.202

Recommendations Students planning on pursuing graduate work in psychology should include the following courses in their undergraduate programs: 57.250, 57.330, 57.340, 57.350, 57.480, 57.502, and 57.501 or 57.503. Research or practicum experience under 57.390 or 57.490 is strongly recommended.

Students interested in graduate school should also consider completing four courses beyond the introductory level in one or more of the following related fields: anthropology, biology, chemistry, economics, linguistics, mathematics, physics, and sociology.

Special Opportunities Students are encouraged to work with faculty members on an individual basis gaining research or practicum experience under course numbers 57.390 and 57.490. Advanced students should consider specialized seminars offered under 57.497, as well as all 500-level courses.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Psychology.

NOTE ALSO Students wishing a B.S. degree in Psychology must complete 60 semester hours, or more (of the 120 semester hours necessary to earn a bachelor's degree) in psychology-related disciplines, including anthropology, biology, chemistry, economics, linguistics, mathematics, philosophy, physics, and sociology. Otherwise, the degree awarded will be a B.A.

Master's Program in Psychology

TRACKS Experimental, Clinical, and Social Psychology

ADMISSION TO THE PROGRAM The Department of Psychology admits graduate students to its Ph.D. program only, and only on a full-time basis. The master's degree is granted to students who have completed the appropriate doctoral course work (see below).

Course Requirements Eight graduate level psychology courses and six semester hours of thesis research. Required courses include one course in statistics and 57.600 or 57.601.

Advancement to Candidacy Satisfactory performance in course work (at least a B average must be maintained with no more than one C), completion of thesis research, satisfactory performance in an oral examination concerning the content of the thesis, and completion of one comprehensive examination.

Examinations (1) Oral defense of thesis research; (2) completion of one comprehensive examination. The nature of the examination is arranged between the student and the student's advisor. the examination may be written or oral.

Thesis The master's level thesis will involve an original research project. It will be designed and carried out by the student and will demonstrate competency in research and an understanding of the substantive issues in the specific area encompassed by the thesis.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Psychology.

NOTE ALSO Students may receive credit for graduate level course work taken outside the Department of Psychology. Courses relevant to the student's special area of study may be taken through the Consortium of Universities of the Washington Metropolitan Area.

Doctoral Program in Psychology

TRACKS Clinical Psychology, Social Psychology, and Experimental Psychology.

ADMISSION TO THE PROGRAM Admission to the program is based on Graduate Record Examination Scores, prior academic performance, and letters of recommendation. Those applicants judged to be among the top 20 or 25 are invited for an interview, and the final selection is based on all information, including the interview. Students are admitted for full-time study only.

Course Requirements	18 graduate level courses, 6 semester hours of master's level thesis research, and 12 semester hours of dissertation research. Students in experimental or social psychology must take 57.600, two courses in statistics and two courses which are clearly outside the area of experimental and social psychology. Students in clinical psychology must take 57.601, 57.691, 57.692, and two courses which are clearly outside the area of clinical psychology.
Special Opportunities	In the fourth year, the clinical student will serve an internship in an appropriate setting outside the University. Special research opportunities in laboratories at the National Institute of Health and related research institutions are available for students in social and experimental psychology.
Advancement to Candidacy	Satisfactory performance in course work (at least a B average must be maintained with no more than one C), completion of thesis and dissertation research, oral defense of thesis and dissertation, and completion of two tools and four comprehensive examinations.
Tools	Two tools are required but do not result in course credit required for the degree. The tool requirement is flexible and can be met in a variety of ways: (1) demonstration of a knowledge of Russian or German; (2) demonstration of mastery in a computer program language; (3) satisfactory completion of one graduate course offered by another department at The American University or by nonpsychology departments of the Consortium Universities; (4) service in one clinical institute which is approximately equal in time and difficulty to a full course; and (5) supervised tool training in other settings when approved by the student's advisor and the departmental chairman.
Examinations	All students will be required to complete four comprehensive examinations outlined by their advisors or other faculty members. These assignments are designed to be more comprehensive and professional than conventional comprehensive examinations. They involve students in the types of activities they will later engage in as professional psychologists. At least one of the four comprehensives must be oral and at least two must be written.
Dissertation	A written proposal of the dissertation is to be submitted to the dissertation committee by the middle of the second semester of the third year. The original proposal, or a revision thereof, should meet the requirements of the committee by the end of the second semester. This allows adequate time for the completion of a quality dissertation even if initial experimentation turns out to be exploratory in nature.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Psychology.

Courses of Instruction

Undergraduate Courses

57.100 INTRODUCTORY SURVEY OF PSYCHOLOGY (3) Survey of various fields of psychology with emphasis on research discoveries. Particular topical emphases and instructional procedures may

vary for different sections; consult psychology department regarding this information. May be taken for the social sciences distribution requirement. Usually offered every term.

57.110 BEHAVIOR PRINCIPLES (3) Emphasizes the general principles of experimental analysis of behavior such as reinforcement, punishment, stimulus control, and verbal behavior. Such issues as behavior modification, emotional illness, punishment and law, social behavior, as well as the social-philosophical issues surrounding the use of behavioral control are considered. May be taken for the social sciences distribution requirement. Usually offered every term.

57.250 DEVELOPMENTAL PSYCHOLOGY (3) Introduction to development from infancy through adolescence, with emphasis on theory and research in normal development: genetics, growth, and maturation; sensation and perception; motivation; cognitive and social functioning. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 57.100 or 57.110.

57.317 PARAPROFESSIONAL SERVICES: TRAINING AND APPLICATION (3) Offers instruction and service in peer counseling and related research activities. Includes training in basic communication and counseling skills, followed by additional intensive training in one specialty area: Hotline or Companion Program. Usually offered every term. *Prerequisites:* Sophomore standing and permission.

57.330 THEORIES OF PERSONALITY (3) Review of theories and research related to personality development. Issues covered include attachment during infancy, identification, moral development, social cognition, and sex differences. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 57.100 or 57.110.

57.340 SOCIAL PSYCHOLOGY (3) The study of individual behavior as influenced by and demonstrated in the presence of other people. Contemporary theory and research in such areas as: obedience and leadership; altruism and violence; cooperation and competition; persuasion and attitude change; and attraction and sexual behavior. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 57.100 or 57.110.

57.350 ABNORMAL PSYCHOLOGY (3) Study of behavioral deviations. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 57.100 or 57.110.

57.390 INDEPENDENT READING COURSE IN PSYCHOLOGY (1-6)*

57.405 TEACHING SEMINAR (3) Applications of behavior principles to teaching. Experiential nondirectively led seminar. Course combines the study of group process, principles of learning, and general topics in education. *Prerequisite:* 57.100 or 57.110.

57.410 PSYCHOLOGICAL TESTS AND MEASURES (3) Theory of mental tests; validity, reliability, and item analysis. Survey of representative tests of ability, personnel selection, aptitude, interests, and personality. May be taken for the social sciences distribution requirement. *Prerequisite:* 57.100 or 57.110, 42.202.

57.411 ADVANCED DEVELOPMENTAL PSYCHOLOGY (3) Contemporary view of modern concepts, theories, and research of child development. May be taken for the social sciences distribution requirement. *Prerequisites:* 57.250 or permission of instructor.

57.450 BEHAVIOR THERAPY WITH CHILDREN (3) Assessment and therapeutic intervention with behaviorally disturbed children. Behavioral techniques such as positive reinforcement, shaping, desensitization, and modeling are stressed. Short lectures and discussion. Each class member works intensively with a retarded or emotionally disturbed child. May be taken for the social sciences distribution requirement. *Prerequisite:* 57.100 or 57.110.

57.460 CHILD REARING PRACTICES AND THE TRAINING OF PARENTS (3) Consideration and combination of approaches to rearing of normal children. Methods of treating disruptive, retarded, and institutionalized children are covered. Students carry out a project during the term. May be taken for the social sciences distribution requirement. *Prerequisites:* two courses in psychology, one of which should be 57.250 or equivalent.

57.480 EXPERIMENTAL PSYCHOLOGY (3) Data and research methods in core areas of psychology. Review of experimental design. Individual and group experiments. May be taken for the social

* See description under General Curriculum Information in this publication.

sciences distribution requirement. Usually offered every term. *Prerequisites*: 57.100 or 57.110, 42.202.

57.490 INDEPENDENT STUDY PROJECT IN PSYCHOLOGY (1–6)*

57.497 ADVANCED TOPICS IN PSYCHOLOGY (3) Individual sections cover specific advanced topics in psychology. Topics offered vary from semester to semester. Each section is an intensive course in a specialized area of psychology. Enrollment in each section is limited. May be repeated for credit within the same term; topic must be different. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisites*: junior or senior standing, three psychology courses, and permission of instructor.

Graduate and Advanced Undergraduate Courses

57.501 PHYSIOLOGICAL PSYCHOLOGY (3) Anatomical and physiological substrata of behavior. Usually offered alternate springs. *Prerequisite*: junior standing, two departmental courses and permission of instructor.

57.502 HISTORY AND SYSTEMS OF PSYCHOLOGY (3) Philosophical and scientific background of modern psychology and contemporary problems of theory construction. Usually offered every fall. *Prerequisites*: one introductory course and senior standing.

57.503 SENSATION AND PERCEPTION (3) Sensory and complex perceptual processes discussed in light of contemporary theories in research. Knowledge of basic statistics desirable. Usually offered alternate falls. *Prerequisites*: two departmental courses.

57.504 GROUP PROCESS (3) Concepts and theories about groups considered in relation to actual groups and organizations with which students have been involved. Usually offered every fall. *Prerequisites*: junior standing and permission of instructor.

57.506 HUMAN SEXUAL BEHAVIOR (3) Course provides overview of various aspects of human sexual behavior including basic physiological knowledge, sex education, sexual myths, premarital and marital sexual behavior, homosexuality, pornography, etc. Emphasis on psychological aspects of sex and sexuality. Usually offered every term. *Prerequisite*: one introductory course.

57.507 CRISIS INTERVENTION: THEORY AND TECHNIQUE: HOTLINE (3) Technique and methods of emergency intervention for acute behavioral disturbances (e.g. drug reactions, depression, and suicide). Includes practicum experience for which screening and training are required. Theme topic of course changes each semester, so can be taken for credit more than once. Usually offered every term.

57.508 FIELD OBSERVATION AND ANALYSIS OF THE BEHAVIOR OF THE MENTALLY ILL (3) Weekly period of observation and participation under supervision, followed by seminar discussion of observations and experience. *Prerequisite*: 57.110.

57.510 LEARNING: PRINCIPLES AND HUMAN APPLICATIONS (3) Study of behavioral procedures discovered from laboratory research and application of these procedures to education, psychotherapy, and other problems in human affairs. *Prerequisites*: junior standing and two courses in psychology.

57.512 HUMAN LEARNING-VERBAL BEHAVIOR (3) Principles of learning applied to verbal behavior including consciousness, thinking, self-perception, and use of behavioral framework for understanding linguistic approaches to language. *Prerequisite*: 57.110.

57.513 PSYCHOPHARMACOLOGY: THE EFFECTS OF DRUGS UPON BEHAVIOR (3) Basic principles of pharmacology, drug-behavior interactions, and the effects of prominent "psychotropic" drugs. While clinical findings are considered, emphasis is on laboratory studies of various drugs. Usually offered alternate falls. *Prerequisites*: two courses in psychology, one of which should be 67.110 or 57.510 or equivalent course in laboratory studies of behavior.

57.520 THE PSYCHOLOGY OF DEATH, SUICIDE, AND LIFE-THREATENING BEHAVIOR (3) Death, mourning, depression, suicide, and self-destructive behaviors are studied from psychological, societal, philosophical religious, legal, and practical viewpoints. Special emphasis is placed on the theoretical, developmental, and clinical aspects of these phenomena, as well as their influence on

survivors and interpersonal supports. The major emphasis is on the impact and prevention of suicidal behavior. Both literature and experimental research are required.

57.540 QUANTITATIVE MODELS OF BEHAVIOR (3) Review of efforts to bring mathematical methods to bear on psychological problems from nineteenth century to present. *Prerequisites:* 57.100 and 42.202.

57.590 INDEPENDENT READING COURSE IN PSYCHOLOGY (1-6)*

Graduate Courses

57.600 FOUNDATIONS OF EXPERIMENTAL RESEARCH (3) Experimental psychology emphasizing the fundamentals of experimental design; students carry out experiments during the term. Usually offered alternate falls. *Prerequisite:* graduate standing.

57.601 EXPERIMENTAL FOUNDATIONS OF CLINICAL PSYCHOLOGY (3) General introduction to clinical psychology emphasizing its scientific roots and methods of clinical research. Usually offered every spring. *Prerequisite:* graduate standing.

57.609 ETHICS AND PROFESSIONAL PRACTICES (3) Deals with theoretical and conceptual questions as well as social problems in area of ethics and professional practice. Specifically, ethical standards, codes, and legislation of psychologists and related professions and ethical problems of community mental health are examined. Usually offered every summer.

57.610 THEORY OF AND INSTRUMENTATION IN THE BEHAVIORAL SCIENCES (3) Practical experience in design and construction of electromechanical and electronic laboratory equipment. Limited to psychology department graduate students.

57.620 CONDITIONING AND LEARNING (3) Advanced analysis of operations and principles developed through the systematic study of classical and operant conditioning. Seminar for advanced graduate students in psychology. Takes up selected topics primarily within the area of operant conditioning. Usually offered alternate springs. *Prerequisites:* 57.600 and graduate standing in the department.

57.630 SYSTEMS OF PSYCHOTHERAPY (3) Review of major psychotherapeutic schools through films, tapes, role playing, demonstrations, and discussion. Usually offered alternate falls. *Prerequisite:* permission of instructor.

57.650 ASSESSMENT OF INTELLECTUAL FUNCTIONS (3) Examination of representative individual tests and their theoretical bases and laboratory practice in administration, scoring, and interpretation of these tests. Usually offered every fall. *Prerequisite:* permission of instructor.

57.651 PERSONALITY TESTING (3) Study of representative personality tests and projective techniques: laboratory practice in administration, scoring, and interpretation of these tests. Usually offered every spring. *Prerequisite:* permission of instructor.

57.670 ADVANCED SOCIAL PSYCHOLOGY (3) Psychological factors in human social behavior. Examination of research literature with emphasis on design and methodology. Consideration given to theoretical problems in social behavior as well as to current trends in experimentation. Usually offered every spring. *Prerequisite:* permission of instructor.

57.690 INDEPENDENT STUDY PROJECT IN PSYCHOLOGY (1-6)*

57.691 PRACTICUM TRAINING I (3) Practice in skills related to counseling-psychotherapy by systematic exposure to critical elements in interview situation through supervision and guided observational experience. Usually offered every fall. *Prerequisite:* permission of instructor.

57.692 PRACTICUM TRAINING II (3) Continuation of Practicum Training I. Usually offered every spring.

57.693 PRACTICUM TRAINING III (3) Supervision in individual and group psychotherapy from psychodynamic point of view. Usually offered every fall. *Prerequisite:* permission of the instructor.

57.694 PRACTICUM TRAINING IV (3) Continuation of Practicum III. Usually offered every spring.

* See description under General Curriculum Information in this publication

- 57.695 BEHAVIOR THERAPY PRACTICUM (3)** Observation and supervision in individual behavior techniques. Usually offered every spring. *Prerequisite:* permission of instructor.
- 57.698 DIRECTED RESEARCH (3–6)** Consult psychology department. May be repeated for credit within the same term; topic may be the same. Usually offered every term
- 57.791 CLINICAL SEMINAR IN PSYCHOTHERAPY I (3)** Usually offered every fall.
- 57.792 CLINICAL SEMINAR IN PSYCHOTHERAPY II (3)** Usually offered every spring.
- 57.796 MASTER'S THESIS INDEPENDENT STUDY (3–6)** Usually offered every term. *Prerequisite:* open to graduate students whose thesis proposal has been approved by department.
- 57.797 MASTER'S THESIS SEMINAR (1–6)**
- 57.798 DOCTORAL DISSERTATION INDEPENDENT STUDY (6–12)** May be repeated for credit within the same term; topic may be the same. Usually offered every term. *Prerequisite:* open to graduate students whose dissertation proposal has been approved by department.
- 57.799 DOCTORAL DISSERTATION SEMINAR (1–12)**

Sociology

CHAIRMAN Muriel G. Cantor

FULL-TIME FACULTY

Professor M. Cantor, F. Lorimer (Emeritus), A. Motz, J. Scott, A. Van der Slice (Emeritus)
Associate Professor S. Farsoun, B. Kaplan, G. Mueller, K. Petersen, J. Siegenthaler
Assistant Professor E. Chow, R. David, S. Friedman, K. Kusterer, A. Lincoln.

Sociology is a disciplined attempt to understand how individuals, through their collective actions, create (and change) patterns of social relations and how, in turn, these social relations influence their lives. In their search for understanding, sociologists focus on many levels of analysis—from societies as component parts of wider systems to individuals as participants in two-person groups. They also study a wide variety of substantive areas—from family life to political change to the social organization of cities. This quest for knowledge is viewed both as an end in itself and as a pathway for informed social change.

The graduate program in the department emphasizes sociological theory, social research, macro-sociology, social psychology, social stratification, and the sociology of work, occupations, and organizations. The undergraduate program requires majors to pursue core sequences in sociological theory and social research, and offers students an opportunity to explore a wide range of perspectives and substantive interests.

Undergraduate Program in Sociology

ADMISSION TO THE PROGRAM Students must be approved by the department for formal admission to the major.

Set	65.200, 65.410, 65.411, 65.420, and 65.421
Requirements	
Required	15 semester hours of electives in sociology, including 12 hours at the 300-level or above and 3 hours at the 500-level. 6 semester hours of
Options	electives beyond the introductory level selected from one of the following areas: anthropology, computer science, economics, history, statistics, philosophy, political science, and psychology. <i>Electives should be selected in consultation with a departmental advisor.</i>
Recommendations	(1) All majors: Complete 65.200 and at least one 300-level elective in sociology before the junior year. Complete 65.410, 64.411, 65.420, and 65.421 during junior year. Choose sociology electives from at least two of the following areas: macrosociology (65.x3x), social psychology (65.x4x), social stratification (65.x5x), work occupations, and organizations (65.x6x), and other (65.x8x). (2) Majors interested in graduate study in sociology or related fields: At

least one course in statistics. Additional sociology electives from several areas.

(3) Majors interested in careers in social research after completion of bachelor's degree: Select 65.490 as sociology elective after completing 65.420–65.421. Select statistics or computer science as related field.

(4) Majors interested in careers in social work: Select 65.491 as sociology elective in junior or senior year. Take at least two courses in social psychology area (65.x4x) as sociology electives. Select psychology as related field.

Special Opportunities

Two undergraduate assistantships, carrying a stipend of \$250 and a work commitment of seven hours per week, are awarded each semester to declared majors with at least a 3.00 overall grade-point average, who have completed 11 or more semester hours of course work in sociology. Consult the department for details.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in sociology.

Master's Program in Sociology

ADMISSION TO THE PROGRAM Admission to the master's program is at the discretion of the department's Graduate Committee. Admission with full-standing requires a 3.00 average (on a 4.00 scale) in the undergraduate major, at least 12 semester hours of approved sociology courses (undergraduate or graduate) with a grade of B or better, and letters of recommendation from three persons able to evaluate the applicant's potential for graduate study in sociology.

Provisional admission may be extended in certain cases where the above standards are not fully met. Provisionally admitted students must petition the Graduate Committee for full-standing immediately after completion of their first semester of full-time work or the first 12 semester hours of part-time work.

The M.A. program is sequenced for students beginning their graduate program in the fall semester. M.A. candidates accepted for spring admission may have special problems that should be resolved with the department before beginning course work.

Course Requirements

Minimum of 30 semester hours of *approved* graduate work, including a research requirement of 6 hours is required. Upon approval, a portion of the residence requirement may be satisfied by courses offered by other members of the Consortium of Universities of the Washington Metropolitan Area.

Six courses are required: 65.610, 65.611, 65.620, 65.621, and two courses in one field of concentration selected from the following: macrosociology, social psychology, social stratification, and work occupations and organizations. Full-time students must complete 65.610, 65.611, 65.620, and 65.621 during their first year in the degree program. Part-time students must complete these courses by the end of their second year in the program.

Tools

Competency in statistics must be demonstrated by satisfactory performance on a statistics tool examination designated by the Department of Sociology, or by passing a graduate level statistics course (3 semester hours) approved by the department. If the student elects to take the statistics course, the 3 hours may contribute toward satisfaction of the 24 semester hours of graduate course work requirement.

Examinations

Satisfactory performance on two comprehensive examinations, one in methods of social research (65.020) and one in sociological theory (65.010). Full-time students must take the examinations in sociological theory and methods of social research in August before beginning their year in the degree program. Part-time students must take one of the two examinations in August before beginning their second year in the degree program and the other in August before beginning their third year of study. Two attempts on each examination are permitted to M.A. students: one in the first examination period after completion of the required two-course sequence in the field, and the second in the next examination period after the first attempt.

Research Requirement

The first three hours of the six semester hour research requirement may be satisfied by completing, with a grade of B or better, (a) as advanced seminar in research methods, (b) an advanced seminar in the student's field of concentration, or (c) an independent study course in the field of concentration. To satisfy the second half of the research requirement, the student must enroll in 65.795 under the guidance of a professor of his or her choice, and complete a substantial research report on a topic related to the field of concentration. A grade of B or better on the research report is required. The report will be evaluated by two full-time faculty members.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in sociology.

Doctoral Program in Sociology

ADMISSION TO THE PROGRAM Admission to the doctoral program is at the discretion of the department's Graduate Committee. Admission in full-standing requires completion of 12 or more semester hours of approved graduate level course work in sociology with a grade-point average of better than 3.00 (on a 4.00 scale), and letters of recommendation from three persons able to evaluate the applicant's potential for doctoral study in sociology. Note: The awarding of an M.A. degree from this department does not automatically qualify a student for acceptance into the doctoral program.

Provisional admission may be extended in certain cases where the above standards are not fully met. Provisionally admitted students must petition the Graduate Committee for full-standing immediately after completion of their first semester of full-time work or the first 12 semester hours of part-time work.

Students who have not completed 12 semester hours of graduate level course work in sociology, as required, are encouraged to apply to the master's degree program. If admitted to that program, they may later petition the department's Graduate Committee for transfer to the Ph.D. program. This requires completion of the M.A. comprehensive examinations, a grade-point average of better than 3.00 (on a 4.00 scale) in courses completed as M.A. candidates, and letters of recommendation from three faculty members.

The Ph.D. program is sequenced for students beginning their graduate program in the fall semester. Ph.D. candidates accepted for spring admission may have special problems that should be resolved with the department before beginning course work.

Course Requirements

Minimum of 72 semester hours of approved graduate work, including 12 to 24 hours of directed study on the dissertation, is required. Students entering the Ph.D. program with M.A. degrees earned elsewhere must complete *at least* 30 semester hours of graduate work in residence at The American University, plus 12 hours of dissertation credit. Upon approval, a portion of the residence requirement may be satisfied by courses offered by other members of the Consortium of Universities of the Washington Metropolitan Area.

Ten courses are required: 65.610, 65.611, 65.620, 65.621, 65.710, 65.720, and two courses in each of two fields of concentration.

Full-time students must complete 65.610, 65.611, 65.620, and 65.621 during their first year in the degree program. Part-time students must complete the sequence in either 65.610–65.611 (theory) or 65.620–65.621 (methods) during their first year and the other sequence during their second year. The basic sequence requirement in theory or methods may be waived for students who receive a grade of satisfactory on the theory or methods comprehensive examination taken in August prior to the semester in which they are required to begin the sequence (see Examinations below). Normally, only students who have completed the theory or methods comprehensive with a grade of satisfactory will be permitted to enroll in the required theory or methods seminar. A grade of B or better is required in courses offered in satisfaction of the theory and methods seminar requirement.

Required courses in fields of concentration: At least one of the doctoral

candidate's two fields of concentration must be selected from the following: Macrosociology (65.030), Social Psychology (65.040), Social Stratification (65.050), and Work, Occupations, and Organizations (65.060). Subject to departmental approval, the candidate may offer as one of his or her fields of concentration a special area not in the above listing (65.080).

Special Opportunities

The department cooperates with Wesley Theological Seminary in offering a Ph.D. in Sociology with a track in Society and Religion. Applicants for admission must meet the requirements of the University and the Department of Sociology and be recommended by Wesley Seminary. Candidates are expected to complete one of the four comprehensive examinations required for the Ph.D. in Sociology in either the field of church and society or the field of social ethics. This examination is administered by Wesley Seminary. In the preparation of their Ph.D. dissertation, candidates are jointly directed by professors of the Department of Sociology and Wesley Seminary.

Wesley degree candidates intending to seek admission to the Ph.D. program in sociology are urged to complete at least 12 semester hours of approved graduate course work in sociology during their graduate study at Wesley Seminary. Such courses should be selected in consultation with professors from the Department of Sociology and Wesley Seminary.

Although a maximum of 30 semester hours of graduate credit, earned with a B or better, may be transferred into the doctoral program, students admitted without a master's degree in sociology should not expect to receive this maximum. Students from Wesley Seminary may transfer 15 semester hours of graduate level course work taken at that institution into the doctoral program if such course work is deemed appropriate to the comprehensive examination to be administered by Wesley Seminary. Petitions for transfer of such credit must be accompanied by a supporting letter from the seminary and may be submitted for evaluation to the department's Graduate Committee at the time of application for admission to the Ph.D. program. Credit approved will be transferred at the time admission in full-standing is achieved.

Petitions to transfer additional credit of graduate level course work in sociology or related fields (other than the field of the comprehensive examination to be administered by Wesley Seminary) must be submitted to the department's Graduate Committee after admission in full-standing is achieved. As a general rule, only course work in sociology will be approved for transfer.

Consult the Department of Sociology and Wesley Theological Seminary for further information about this program.

Tools

Before submitting a dissertation, the candidate must demonstrate proficiency in: (1) a language approved by the department, and (2) statistics for social research. Satisfaction of the language tool requires passing a language examination designed to test the candidate's reading knowledge of the language. The statistics tool may be satisfied through a proficiency examination designated by the department or by completing satisfactorily 6 semester hours of graduate work in statistics approved by the department. If the student elects to take the statistics courses, the 6 hours may, contingent on departmental approval, contribute toward satisfaction of the 60 semester hours of graduate course work requirement.

Examinations

Satisfactory performance on four comprehensive examinations, one in sociological theory, one in methods of social research, and one each in two other fields of concentration is required.

Examinations in theory and methods: Full-time students must take the comprehensive examinations in sociological theory and methods of social research in August before beginning their second year in the

degree program. Part-time students must take one of the two examinations in August before beginning their second year in the degree program and the other before beginning their third year of study. A maximum of three attempts on these examinations is permitted to doctoral students: One taken prior to enrollment in the required sequence (see Required Courses above), one taken in the first examination period after completion of the required sequence, and one taken in the next examination period.

Satisfactory performance on the comprehensive examinations in theory and methods will qualify the doctoral candidate to continue in the Ph.D. program.

The comprehensive examination requirement in theory and methods of social research will be waived for students who complete the M.A. comprehensive examination requirement at The American University in the Fall 1976 examination period or thereafter, providing that this requirement was satisfied no more than three years prior to admission to the Ph.D. program.

Examinations in fields of concentration: At least one of the examinations in the student's fields of concentration must be oral. One retake is permitted in each of the field examinations and must be completed within two years of the first attempt. These examinations are designed to test the broad general knowledge of the candidate and his or her ability to discuss, intelligently and professionally, basic issues in the field. This ability is not expected to be gained from course work alone. It must come out of a background of wide reading in the literature and considerable reflection and creative thinking. It is strongly recommended that, in preparation for comprehensives in fields of concentration, the candidate develop detailed topical outlines (with references to key sources for each topic) and discuss these outlines with faculty members responsible for the examination in the field, prior to the examination date.

Dissertation

Capping the requirements is the dissertation, together with the required oral examination of the dissertation in which the candidate may be questioned over the general field of his or her research. Normally, the candidate must have completed all academic requirements for the degree before the oral examination is held.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in sociology.

Courses of Instruction

Undergraduate Courses

65.200 INTRODUCTION TO SOCIOLOGY (3) 65.200 is a general prerequisite to all 300- and 400-level sociology courses. Fundamental characteristics of social relationships. Culture, personality, population and ecology, social institutions and processes, and cultural change. May be taken for the social sciences distribution requirement. Usually offered every term.

65.201 MARRIAGE AND FAMILY LIVING (3) Recent changes in American family; modern dating, mate-selection, engagement, early marital adjustment, communication, money, working wife, sex, and in-law problems. Not open to first semester freshmen. Usually offered every term.

65.330 INTRODUCTION TO SOCIAL CHANGE (3) Analysis of the causes, processes, and consequences of social change. Critical examination of theories of social change in context of comprehensive analysis. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.331 POLITICAL SOCIOLOGY (3) Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.332 LAW AND SOCIAL ORDER (3) Functions of law in society; social origins and development of political authority around human rights. Changing role of law in modern democratic state. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* 65.200 or permission of the instructor.

65.333 COMPARATIVE SOCIAL SYSTEMS (3) Comparative analysis of contemporary societies, social institutions, value systems, formal and informal organizations, integration and cohesiveness, and relationships with other societies. May be taken for the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* 65.200 or permission of the instructor.

65.334 SOCIAL CONFLICT (3) Sociological analysis of history, typology, structure, function, and nature of social conflict. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* 65.200 or permission of the instructor.

65.340 SOCIAL INTERACTION (3) Sociological perspective of the interrelationship between individual and group. Socialization roles in small and complex organizations, mass communication, and social movements. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.341 COLLECTIVE BEHAVIOR (3) Analysis of crowd, mass, and public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors and processes in emergence of social order. May be taken for the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* 65.200 or permission of the instructor.

65.342 SOCIAL PSYCHOLOGY OF INTERGROUP TENSIONS (3) Intergroup prejudice and its relation to other aspects of personality and social behavior. Recent research on the determinants of intergroup attitudes. Techniques for the reduction of intergroup tension. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* 65.200 or permission of the instructor.

65.350 INTRODUCTION TO SOCIAL STRATIFICATION (3) Major theories and related empirical studies of stratification; sources and consequences of mobility; and relationship of stratification to life-style, political power, and personality. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.351 RACE AND ETHNIC RELATIONS (3) Sociological examination of relationships between and within racial and ethnic groups; analysis of social causes of prejudice and discrimination. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.352 POSITION OF WOMEN IN THE SOCIAL ORDER (3) Location and description of women in population. Nature and extent of prejudice and discrimination against women. Impact and significance of female equality upon social order. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisite:* 65.200 or permission of the instructor.

65.353, 65.354 SOCIOLOGY OF THE AFRO-AMERICAN I, II (3), (3) Examinations of racism in Europe. Process of Afro-American's assimilation into U.S. culture. Negro institutions, business, leadership, education, literature, music, migration, poverty, discrimination, and demand for equality. May be taken for the social sciences distribution requirement. 65.353 usually offered every fall and 65.354 usually offered every spring. *Prerequisite:* 65.200 or permission of the instructor. 65.353 is prerequisite to 65.354.

65.380 RELIGION AND SOCIETY (3) Concepts, methods, and techniques in sociological analysis of religion. Historical comparative and functional approaches to religion. Emphasis on European and American Christianity. May be taken for the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* 65.200 or permission of the instructor.

65.382 THE FAMILY (3) Varying forms and functions of family organization in different societies. Evolution of American family patterns. Family relations and personality formation. Contemporary social changes influencing family life. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.383 AMERICAN SOCIETY (3) Analysis of contemporary American social institutions. American social system in historical perspective, value system, ethnic composition, formal and informal structures. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.384 DEVIANCE AND SOCIAL CONTROL (3) Analysis of social problems created by technical and cultural change. Theories of deviance systematically analyzed in relationship to societal control. May

be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.385 POPULATION (3) Survey of world population trends. Introduction to methods of analysis. Determinants and consequences of variations in fertility, mortality, and migration. May be taken for the social sciences distribution requirement. *Prerequisite:* 65.200 or permission of the instructor.

65.386 SOCIAL INSTITUTIONS (3) Social structure emphasizing the nature, functioning, integration of social institutions. May be taken for social sciences distribution requirement. *Prerequisite:* 65.200 or permission of the instructor.

65.387 CONTEMPORARY COMMUNITIES (3) Analysis and comparison of social and political structures and ideologies of contemporary communities of the world, stressing American community types. Approaches to community research. May be taken for the social sciences distribution requirement. Usually offered every spring. *Prerequisites:* 65.200 or permission of the instructor.

65.388 SOCIOLOGY OF URBAN YOUTH (3) Centers on the life styles and the role of youth in the urban community. Individual and societal dilemmas revolving around population characteristics, family forms, labor market, schooling, mass media, and bilingual, ethnic and/or behavioral subcultures discussed in terms of sociological and educational theories and research. May be taken for the social sciences distribution requirement. Usually offered every fall. *Prerequisite:* 65.200 or permission of the instructor.

65.389 HUMAN ECOLOGY (3) Relation of environment to distribution of population and to social structure and culture. May be taken for the social sciences distribution requirement. *Prerequisites:* 65.200 or permission of the instructor.

65.390 INDEPENDENT READING COURSE IN SOCIOLOGY (1-6)*

65.410 CLASSICAL SOCIOLOGICAL THEORY (3) Historical background of theories, concepts, and methods of sociology; emergence and characteristics of most significant sociological systems. Usually offered every term. *Prerequisite:* 65.200 or permission of the instructor.

65.411 CONTEMPORARY SOCIOLOGICAL THEORY (3) Systematic analysis of modern sociological theories and schools of thought. Logic and procedures of theory construction. Usually offered every term. *Prerequisite:* 65.410.

65.420, 65.421 INTRODUCTION TO SOCIAL RESEARCH METHODS I, II (4), (4) Introduction to nature, methods, principles, and techniques of scientific social research. Critical review of types of investigations, with accent on field research. In addition to regular class meetings, a weekly 50-minute laboratory-consultation session is required, time to be arranged by the instructor. Usually offered every term. *Prerequisites:* 65.200 or permission of the instructor. Students taking 65.421 must have 65.420 from the same instructor.

65.490 INDEPENDENT STUDY PROJECT IN SOCIOLOGY (1-6)*

65.491 INTERNSHIP (3-6) Usually offered every term. *Prerequisites:* 65.200 or permission of the instructor.

Graduate and Advanced Undergraduate Courses

65.530 MACROSOCIOLOGY (3) Historical and comparative analysis of whole societies. Study of the structure of whole societies, of relations among societies, and of world systems. Usually offered every fall. *Prerequisite:* graduate standing or three courses in sociology.

65.531 REGIONAL STUDIES IN SOCIAL CHANGE (3) Topical courses examining social change in different areas of the world as a cause and consequence of economic development. Emphasis is on the social impact of governmental or corporate policies. Examples include: Latin America and the Middle East. May be repeated for credit within the same term; topic must be different. *Prerequisite:* graduate standing or three courses in sociology.

65.540 SOCIAL PSYCHOLOGY: SOCIOLOGICAL PERSPECTIVES (3) Sociological perspectives of the interrelationships between person and group: concepts, theories, and methods. Interaction between social structural variables and personality development, adult socialization and aging, collective behavior, and intergroup relations. Usually offered every spring.

65.550 STUDIES IN SOCIAL STRATIFICATION AND MOBILITY (3) Class, status and power relations in

society. Caste, estate, social class, and social mobility. Theories and research findings of current importance. Usually offered every spring. *Prerequisites:* graduate standing or three courses in sociology.

65.560 WORK: SOCIOLOGICAL PERSPECTIVES (3) Relationship between social structure, occupational structure, and the types of work available; the organization of work, and the way people carry out their work. Usually offered every fall. *Prerequisites:* graduate standing or three courses in sociology.

65.581 SOCIAL ASPECTS OF MASS COMMUNICATION (3) Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory.

65.590 INDEPENDENT READING COURSE IN SOCIOLOGY (1-6)*

Graduate Courses

65.610 HISTORY OF SOCIOLOGICAL THEORY (3) Comparative study of major theorists in the nineteenth and twentieth centuries. Usually offered every fall.

65.611 MODERN SOCIOLOGICAL THEORY (3) Systematic analysis of modern sociological theories and major schools of social thought. Problems of theory construction. Usually offered every spring. *Prerequisite:* 65.610.

65.620, 65.621 SOCIAL RESEARCH I, II (3), (3) Conceptual and procedural aspects of the research process with some accent on quantitative methods. Formulation and specification of research questions, development of research designs, translation of plans into action (measurement, data collection, data processing, and preparation of research reports). 65.620 usually offered every fall and 65.621 usually offered every spring.

65.630 CONFLICT AND CHANGE: MACROSOCIOLOGICAL PERSPECTIVES (3) Analysis of socio-political processes in the development of national, regional, and world systems. Study of the formation of social movements in this context. Usually offered every spring. *Prerequisite:* 65.530 or permission of the instructor.

65.640 THEORIES OF SOCIAL PSYCHOLOGY (3) Analysis and criticism of selected theories dealing with the nature of human nature, personality, group influences, and interaction. Consideration of symbolic interaction, attribution theory, role theory, and Freudian theories. Usually offered every fall. *Prerequisite:* 65.540 or permission of instructor.

65.650 CLASS AND STRATUM: ORGANIZATION AND CONSCIOUSNESS (3) Comparative analysis of the formation, organization, conflict, and consciousness of classes and strata. Includes analysis of associated belief systems. Usually offered every fall. *Prerequisite:* 65.550 or permission of the instructor.

65.660 SOCIOLOGY OF WORK AND ORGANIZATIONS (3) Work and workers in historical and comparative perspective. Workers' organizations and consciousness. Current trends and issues in work and work organization. Usually offered every spring. *Prerequisite:* 65.560 or permission of the instructor.

65.690 INDEPENDENT STUDY PROJECT IN SOCIOLOGY (1-6)*

65.691 INTERNSHIP (3) May be repeated for credit within the same term; topic must be different. Usually offered every term. *Prerequisite:* graduate standing.

65.710 SEMINAR IN SOCIOLOGICAL THEORY (3) Intensive study of selected areas or schools of sociological thought. Emphasis on use of primary source materials. May be repeated for credit within the same term; topic must be different. *Prerequisite:* permission of instructor.

65.720 SEMINAR IN SOCIAL RESEARCH (3) Advanced study in selected methodological approaches and research techniques in social research. May be repeated for credit within the same term; topic must be different. *Prerequisite:* permission of instructor.

65.730 SEMINAR IN MACROSOCIOLOGY (3) Consideration of theoretical and methodological problems in the field. Preparation of related research reports. May be repeated for credit within the same term; topic must be different. Usually offered alternate falls. *Prerequisite:* permission of the instructor.

* See description under General Curriculum Information in this publication.

65.740 SEMINAR IN SOCIAL PSYCHOLOGY (3) Consideration of recent theoretical and methodological advances in social psychology. Critical analysis of concepts and research. May be repeated for credit within the same term; topic must be different. Usually offered alternate springs. *Prerequisite:* permission of instructor.

65.750 SEMINAR IN SOCIAL STRATIFICATION (3) Exploration and criticism of theoretical and methodological aspects of the field. May be repeated for credit within the same term; topic must be different. Usually offered alternate springs. *Prerequisite:* permission of the instructor.

65.760 SEMINAR IN WORK, OCCUPATIONS AND ORGANIZATION (3) Consideration of theoretical and methodological issues in the fields; preparation of research reports. May be repeated for credit within the same term; topic must be different. Usually offered alternate falls. *Prerequisite:* permission of the instructor.

65.795 MASTER'S RESEARCH: INDEPENDENT STUDY IN SOCIOLOGY (3) Directed individual master's research carried on under supervision of faculty member selected by student. Preparation of a substantial research report on topic related to student's field of concentration. *Prerequisite:* permission of instructor.

65.797 MASTER'S THESIS INDEPENDENT STUDY (1-6)

65.799 DOCTORAL DISSERTATION INDEPENDENT STUDY (1-12) Directed individual dissertation research carried on under supervision of the student's dissertation committee chairman. *Prerequisite:* open to graduate students whose dissertation proposal has been approved by the department.



School of Business Administration

DEAN Herbert E. Striner

Assistant Dean for Graduate Programs Sterling D. Whitley

Assistant Dean for Administration and Planning Francis J. Girard

Assistant Dean for Program Development Herbert P. Stutts

FULL-TIME FACULTY

Professor C. I. Bartfeld, T. B. DiBacco, M. L. Fair (Emeritus), H. Glazer, J. E. Hampton, P. S. Hugstad, L. L. Karadbil, E. R. Lehman, C. H. Madden, H. Martyn (Emeritus), J. Owens, N. G. Photias (Emeritus), M. Robinson (Emeritus), R. M. Sachs, M. Seldin, H. E. Striner, H. B. Weiss (Emeritus) S. D. Whitley

Associate Professor G. R. Allen, H. K. Baker, D. R. Brenner, K. L. Burns, J. R. Butts, M. A. Dittenhofer, R. Einhorn, N. M. Gandhi, R. Gorman, W. E. Halal, S. R. Holmberg, J. Kokus, D. T. Moore, M. P. Pujol, H. Rosenthal, J. C. Seigle, V. Selman, J. H. Sood, R. M. Springer

Assistant Professor G. E. Biles, G. F. Bulmash, A. D. Cao, P. M. Grace, D. E. Herold, S. H. Ivison, P. F. Jacoby, R. W. Kopprasch, M. A. Mass, S. M. Mintz, E. M. Pierce, K. H. Rabin

Instructor H. N. Singer

The School of Business Administration prepares men and women for careers as executives and specialists in business and other complex organizations. The school concentrates on these functions: (1) to provide its students with a firm base of liberal education; (2) to provide a common body of knowledge in business administration; (3) to offer areas of specialization; (4) to associate closely with other schools and colleges of the University to enrich the understanding of its students; (5) to develop in its students the ability to project their thinking into the future by seeing business not only in the present, but also in relation to the past; and (6) to have each student leave school with a coherent and ever-developing personal philosophy of business, an understanding of the ever-changing technological world in which one lives, and a firm awareness of one's social responsibility.

INSTRUCTION AND RESEARCH The school centers its activity around two themes: (1) the business person as planner, decision maker, implementer, and controller of operations in a business firm; and (2) the business person as an analyst of the social, economic, and political environment.

Undergraduate Programs in Business Administration

MAJORS Accounting, Professional Accounting, Business Economics, Computer Systems, Finance, Marketing, Personnel, and Urban Development.

ADMISSION TO THE PROGRAMS Students must be approved by the various departments of the school for admission into a major. The school recommends that this be accomplished before the student registers for the junior year.

Set Requirements All students must complete the SBA primary core of 24 semester hours consisting of 10.201, 10.240, 10.241, 10.353, 10.355, 10.365, 10.458, and 11.300.

Required Options

All students must complete the SBA secondary core of nine semester hours and a SBA major of 15 semester hours. The major programs are:

(1) *Accounting*: 10.340, 10.341, 10.345, 10.440, and 10.443.

(2) *Professional Accounting*: 10.340, 10.341, 10.345, 10.440, 10.441, 10.443, 10.444, and 10.449.

(3) *Business Economics*: 19.301, 19.311 or 19.367, plus three 19.300 or 19.400 courses.

(4) *Computer Systems*: 40.280, 40.281, plus three courses selected by the advisor depending upon the student's goals.

(5) *Finance*: 19.306, 10.340, 10.464, 10.468, and 10.469.

(6) *Marketing*: 11.301, 11.302, 11.401, 11.402, plus one from 11.411, 11.414, 11.436, 11.438, and 12.413.

(7) *Personnel*: 10.381, 10.452, 10.492, 10.493, plus one elective.

(8) *Urban Development*: 11.470, 11.471, 11.472, 11.476, and 11.477.

Related Requirements

All students must take a minimum of 48 semester hours outside SBA, including: (1) 23.100, 23.101, 41.100, 40.260, 42.202, 19.101, and 19.102; (2) one of the following: 03.201, 57.110, and 65.200; (3) 3 additional semester hours in mathematics, statistics, computer science, or one of the natural sciences; (4) 12 additional semester hours in humanities; and (5) 6 additional semester hours in liberal arts.

Recommendations

Students planning to take the CPA examination or pursue a Master of Science degree with a major in Accounting should take the Professional Accounting major.

Special Opportunities

Advanced standing is available to certified public accountants, members of the bar, and American Institute of Banking students. Consult the Assistant Dean for Administration and Planning for details. Cooperative education experiences are available as electives in the last three semesters of the program.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science in Business Administration with a major in Accounting, Professional Accounting, Business Economics, Computer Systems, Finance, Marketing, Personnel, or Urban Development.

Master's Programs in Business Administration: Master of Business Administration

MAJORS Students select one of the following majors: Accounting (requires previous accounting background), Business-Government Relations, Employee Relations, Finance, International Business, Managerial Economics, Marketing, Operations Analysis, and Real Estate and Urban Development Planning. Other specially developed majors are possible.

ADMISSION TO THE PROGRAMS Score of 500 on the Graduate Management Admission Test (GMAT); grade-point average of 3.00 on a 4.00 scale for the last two years of undergraduate work. Students with GMAT and/or grade-point average scores slightly lower may be admitted subject to approval by the admissions Committee (no more than 20% of each year's admissions).

Students with non-English-speaking backgrounds must be certified by the English Language Institute (ELI) and must be interviewed by the Assistant Dean for Master's Programs and a full-time faculty member from the student's proposed major field.

Special M.B.A. Option This option is for graduates of business schools at regionally accredited universities who have received a degree within the past three years and have: a grade-point average of at least 3.00 on a 4.00 scale for *all* undergraduate work; a 3.40 grade-point average for business and economics courses; a GMAT score of at least 525; and have completed a "common body of business knowledge" in the undergraduate curriculum, per the American Association of Collegiate Schools of Business (AACSB) standards. Up to eight core or business elective courses in the M.B.A. may be waived without examination, and with no replacement courses necessary. *Only full-time students will be eligible. The program could be completed within one year.*

Course Requirements

(1) *Core First Stage*: 10.603, 10.606, 10.607, 10.610, 10.611, and 11.601. (2) *Core Second Stage*: 10.604 or 10.653, 10.605, 10.612,

10.614, and 11.627. (3) *Core Third Stage*: (after 45 semester hours of course work completed) 10.755 or 11.792. (4) *Electives*: no more than four courses in the major; four others approved by the advisor (may be outside SBA).

Normal electives in the majors are: (1) *Accounting*: 10.634, 10.652, 10.710, and 10.711. (2) *Business-Government Relations*: 10.680, 10.701, 10.705, and 10.706. (3) *Employee Relations*: 10.791, 10.792, and two from 10.690, 10.694, 10.695, and 10.697. (4) *Finance*: 10.665, 10.667, 10.668, and 10.671. (5) *International Business*: 10.669, 11.628, 11.629, and 11.726. (6) *Managerial Economics*: four courses prescribed by the advisor. (7) *Marketing*: 11.602, 11.603, 11.604, and 11.701. (8) *Operations Analysis*: 11.795 and three courses prescribed by the advisor. (9) *Real Estate and Urban Development Planning*: 11.684, 11.685, 11.776, and 11.778 or 11.779.

Special Opportunities

The degree may be obtained on a part-time basis attending evening classes.

Special areas of concentration may be arranged to include study in other departments or schools of the University. The faculty will also consider special reading and project courses to meet individual problems.

Advancement to Candidacy

After completion of at least 15 semester hours in the program, and fulfillment of all conditions in the graduate admission notice. Students with advanced standing should apply before the sum of all credit exceeds 24 semester hours.

Tools

The GMAT supplies evidence of aptitude in verbal and quantitative skills. Qualification in accounting and statistics is supplied in the core courses.

Examinations

One written comprehensive examination is required on the content of the core material after completion of 45 semester hours.

Thesis

Nonthesis option: 10.755 or 11.792, and the 10.7xx seminar in the major field.

DEGREE OBJECTIVE Students receive a degree of Master of Business Administration with a major in Accounting, Business-Government Relations, Employee Relations, Finance, International Business, Managerial Economics, Marketing, Operations Analysis, or Real Estate and Urban Development Planning.

Master's Program in Accounting: Master of Science

ADMISSION TO THE PROGRAM The requirements for admission are the same as those specified for the M.B.A. degree, which is described above.

Course Requirements

Total (maximum) courses: 10.345,* 10.440,* 10.449,* 10.603, 10.605, 10.606, 10.610, 10.611, 10.634,** 10.639,** 10.648, 10.650, 10.651, 10.652,** 10.710,** 10.711,** and 11.601. (*Undergraduate credit only; function as prerequisite courses for the M.S. **Required by all students.)

Curriculum will be arranged by the faculty advisor depending on each student's background. Program may vary from a minimum of 30 semester hours to a maximum of 51 semester hours. Those students with undergraduate majors in accounting may be able to reduce the total semester hour requirement to as little as 36. Those with varying backgrounds will be advised individually.

Advancement to Candidacy

After completion of 15 semester hours in the program and fulfillment of the conditions in the graduate admission notice. Students with advanced standing should apply before the sum of all credit exceeds 24 semester hours.

Tools

The GMAT supplies evidence of aptitude in verbal and quantitative skills. Qualification in the common body of business knowledge is supplied in the required courses.

Examinations

One written comprehensive examination, plus field problem and oral

examination, required upon completion of the program (or during the final course work).

Thesis

Nonthesis option: 10.639 and 10.711.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Accounting.

Master's Program in Business-Government Relations: Master of Science

ADMISSION TO THE PROGRAM Closed to new entries until further notice.

Course

Under revision.

Requirements

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Business-Government Relations.

Master's Program in Employee Relations Management: Master of Science

ADMISSION TO THE PROGRAM Closed to new entries until further notice.

Course

Under revision.

Requirements

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Employee Relations Management.

Master's Program in Public Information Administration: Master of Science

ADMISSION TO THE PROGRAM Satisfactory score on the Graduate Record Examination and a 3.00 grade-point average in the last two years of undergraduate work.

Course

(1) *Core* (to total 12 semester hours): 11.650, 13.655, 13.658 or 13.659, and 13.656 or 11.651 or 13.657. (2) *Electives* (to total 15 semester hours) from the following: 10.604, 10.680, 10.701, 11.605, 11.651, 11.652, 11.653, 13.656, 13.657, 13.658, 13.659, 13.660, 13.661, 13.662, 13.663, 13.740, and 54.600.

Requirements

Special
Opportunities

Degree may be completed on a part-time basis in the extended-campus program.

Advancement to
Candidacy

After completion of at least 15 semester hours in the program and fulfillment of conditions in the graduate admission notice. Students with advanced standing should apply before the sum of all credit exceeds 24 semester hours.

Tools

The GRE supplies evidence of required skills. It is desirable that students are proficient typists.

Examinations

One written comprehensive examination on the entire program is required not earlier than the last session of course work.

Thesis

Nonthesis option: six semester hours of research projects: 13.789 and 13.792.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Public Information Administration.

Master's Program in Real Estate and Urban Development Planning: Master of Science

ADMISSION TO THE PROGRAM The requirements for admission are the same as those specified for the M.B.A. degree, which is described above.

Course

(1) *Core courses*: 10.603, 10.605, 10.606, 10.607, 10.610, 10.642 or 11.601, and either 10.755 or 11.792. (2) *Major courses*: 11.578 or 11.683, 11.684, 11.685, 11.776, 11.778, 11.779, and one of the following: 11.565, 11.572, 54.680, or 54.684.

Requirements

Special Opportunities	Internship in urban and real estate problems, by arrangement with the faculty.
Advancement to Candidacy	After completion of at least 15 semester hours in the program and fulfillment of the conditions in the graduate admission notice. Students with advanced standing should apply before the sum of all credit exceeds 24 semester hours.
Examinations	One written comprehensive examination covering all course work, field problem, and an oral examination, not earlier than the final semester of course work.
Thesis	No thesis.
DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in Real Estate and Urban Development Planning.	

Courses of Instruction

Undergraduate Courses

BUSINESS ADMINISTRATION

10.201 BUSINESS LAW (3) Scope of business law. Individual, business, and legal relationships. Legal concepts, philosophy, and functions. Federal and state court systems. Survey coverage of contracts, sales, agency, business forms, and property. Introduction to negotiable instruments. Usually offered every term.

10.202 ADVANCED BUSINESS LAW (3) Specific in-depth coverage of functions, form and content of commercial paper. Law of real and personal property. Legal bibliography. In-depth study of legal requirements of business. Case research. Usually offered every term. *Prerequisite:* 10.201.

10.212 PERSONAL FINANCE (3) Investigation into the principles of personal financial management. Major topics include budgeting, consumerism, taxes, credit, savings and savings instruments, insurance (life, health, automobile, fire, and property), housing, investments (stocks, bonds, mutual funds, annuities, and real estate), and estate planning. Usually offered every term.

10.240 PRINCIPLES OF ACCOUNTING I (3) Basic principles underlying financial statements. Assets, liabilities, and income measurement. Usually offered every term. *Prerequisite:* sophomore standing.

10.241 PRINCIPLES OF ACCOUNTING II (3) Continuation of 10.240. Introduction to fundamentals of management accounting for planning and control. Uses of accounting data. Usually offered every term. *Prerequisite:* 10.240

10.340 INTERMEDIATE ACCOUNTING I (3) Valuation of assets and equities. Measurement of business income. Generally accepted accounting principles. Financial statements and analysis. Usually offered every term. *Prerequisites:* 10.241 and junior standing.

10.341 INTERMEDIATE ACCOUNTING II (3) Continuation of 10.340. Selected specific topics covering accounting issuances by the APB and FASB. Financial statements and analysis. Usually offered every term. *Prerequisite:* 10.340.

10.345 COST ACCOUNTING (3) Uses of accounting data for planning and control and decision making. Budgets and standard costs. Concepts and techniques. Usually offered every term. *Prerequisites:* 10.241 and junior standing.

10.353 ORGANIZATIONAL BEHAVIOR (3) Survey of field of management intended to acquaint student with current management theories, research, and practice. Course content represents synthesis of behavioral sciences providing broad framework of management. Main topics include organizational goals and responsibilities, models, decision theory, planning, control, organization, motivation, leadership, group behavior, conflict, and organizational change. Usually offered every term.

10.354 BUSINESS APPLICATIONS OF COMPUTERS, MATHEMATICS AND STATISTICS (3) Application of mathematical and statistical techniques to the solution of business problems. Emphasis upon the application of techniques such as regression, test of significance, elementary decision theory, and linear programming using the computer. Usually offered every term. *Prerequisites:* 41.100, 40.260, 2.202.

10.355 QUANTITATIVE ANALYSIS/OPERATIONS MANAGEMENT (3) Fundamental concepts associated with operations management. Introduction to operations research and management science and its interdisciplinary aspects. Basic elements of decision theory, inventory models, LP, PERT/CPM, production models, waiting lines, etc. Usually offered every term. *Prerequisites:* junior standing; all SBA requirements in economics, mathematics, statistics, and computers.

10.356 BUSINESS INFORMATION RETRIEVAL (3) Discussion of modern information sources for managerial decision making, including manual and computerized indices and the use of data banks. Information handling techniques are described. Storage of records, their processing, and retrieval represent major topics for this course. Usually offered every term.

10.365 CORPORATE FINANCE (3) Introductory course in business finance: acquisition and use of short-term funds and long-term capital; overview of money and capital markets; management of asset, liability and capital accounts; financial analysis and time value of money; cash, operating and long range budgeting; leasing; corporate securities; dividend policy; cost of capital. Usually offered every term. *Prerequisites:* 10.241 and junior standing.

10.381 INTRODUCTION TO PERSONNEL ADMINISTRATION (3) To understand the principles and operations of personnel administration and industrial relations systems in organizations by analyzing and applying theoretical concepts to functional situations. Usually offered every term. *Prerequisite:* junior standing.

10.390 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (1-6)*

10.440 ADVANCED ACCOUNTING (3) Theory and practices of accounting for partnerships; consolidated financial statements, business combinations, and selected topics in fiduciary accounting. Usually offered every term. *Prerequisite:* 10.341.

10.441 ACCOUNTING THEORY (3) Structure and overview of accounting theory. Specific topics such as multinationals and foreign exchange. Current issues and controversies. Usually offered every term. *Prerequisite:* 10.440.

10.443 TAXATION I (3) Introduction to federal income tax of individuals, partnerships, and corporations. Usually offered every term. *Prerequisites:* junior standing, 10.240 and 10.241.

10.444 TAXATION II (3) Selected topics in federal income tax for individuals, partnerships, and corporations. Specialized areas such as estates and trusts. Usually offered every term. *Prerequisites:* 10.340 and 10.443.

10.449 AUDITING (3) Auditing objectives and standards. Auditing procedures. Audit workpapers. Tests and sampling in auditing. Usually offered every term. *Prerequisite:* 10.341.

10.452 BUSINESS RESPONSIBILITY IN AMERICAN SOCIETY (3) Conceptual and historical framework in which the American firm performs its role as an institution of the community. Special focus on interrelationship between business responsibility and the public policy process. Heavy emphasis on student participation, cases. Usually offered every term. *Prerequisite:* junior standing.

10.458 APPLICATIONS IN MANAGEMENT (3) Provides problem-solving environment which is intended to integrate knowledge in functional areas of business, and to simulate immediate management experiences. Various methods intended to simulate management environment may be employed, including use of case studies, computerized management games, and consultant roles with business firms. Usually offered every term. *Prerequisite:* senior standing.

10.464 FINANCIAL MARKETS AND INSTITUTIONS (3) In-depth study of history, purposes, functions, and organization of the short-term money market and long-term capital market. Presents an integrated view of the participating institutions and the markets in which they operate, their investment constraints, and resulting portfolios. The role of the Fed is examined. Usually offered every term. *Prerequisites:* 10.365, 19.306.

10.468 FINANCIAL DECISION MAKING (3) In-depth investigation of the investment, financing, and dividend policy decisions of the financial manager. Case studies and a financial simulation are utilized to provide the student with an opportunity to make and see the impact of financial decisions. Usually offered every term. *Prerequisite:* 10.365.

10.469 INVESTMENT ANALYSIS (4) Investment objectives. Methods of appraising corporate equity and debt securities, municipals, mutual funds, and listed options. Includes technical analysis, random

* See description under General Curriculum Information in this publication.

walk theory, and the role of institutional investors. Participation in Stock Market Institute's Performance Game. Usually offered every term. *Prerequisite:* 10.365.

10.490 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (1-6)*

10.492 INDUSTRIAL RELATIONS ADMINISTRATION (3) To analyze the concepts and principles of various collective bargaining processes by emphasizing the historical, legal, economic, social, and behavioral dynamics of union management relationships in both the private and public sectors. Usually offered every term. *Prerequisite:* 10.381.

10.493 PROBLEMS IN PERSONNEL ADMINISTRATION (3) To utilize problems and case histories in order to develop decision making proficiency in the functional areas of personnel administration and industrial relations. Usually offered every term. *Prerequisite:* 10.492.

11.300 PRINCIPLES OF MARKETING (3) The role and importance of marketing philosophy of modern business management. Interrelationships among marketing, production, transportation, and total economy. With a macroapproach, emphasizes social and economic aspects of marketing, and identifies prevailing concepts, functions, institutions, and terminology. Explains relationships among consumers, business, and government. Usually offered every term. *Prerequisites:* 19.101, 19.102 and junior standing.

11.301 MARKETING ANALYSIS AND BUYER BEHAVIOR (3) Marketing research principles and processes, helping to find out why consumers buy. Research planning, data collection, analysis, interpretation, and presentation methods. Emphasis on consumer behavior theories. Usually offered every term. *Prerequisites:* 42.202 and 11.300.

11.302 INTERNATIONAL MARKETING (3) The concepts and practices of marketing across boundaries of nation states, and the modifications and adaptations required in the marketing program to meet the different problems and challenges involved in the activity. Usually offered every term. *Prerequisite:* 11.300.

11.390 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (1-6)*

11.401 MARKETING RESEARCH (3) Practical applications of marketing research principles and processes in case studies and projects with emphasis placed on sales, new products, promotion, and consumer research. Usually offered every spring. *Prerequisites:* 11.301 and 42.300.

11.402 MARKETING PROBLEMS (3) Role of marketing management in business. Practical applications of marketing thought and theory in decision making for the marketplace and in-depth analysis of marketing problems. Usually offered every spring and every summer. *Prerequisites:* 11.401 and senior standing.

11.411 ADVERTISING AND PROMOTION (3) An analytical view of advertising's role in society and business. Emphasis on how promotion campaigns are planned, created, and budgeted for; how it works to inform buyers, promote sales, and persuade people to buy. Designed to provide understanding of advertising's challenges to the business world. Usually offered every term. *Prerequisite:* 11.300.

11.414 FUNDAMENTALS OF INTERNATIONAL BUSINESS (3) Survey of the nature, methods, and extent of international trade and investment and of the cultural, economic, legal, and political environments within which these activities take place. Important trends and vital current issues are examined against the relevant conceptual background. Usually offered every term. *Prerequisite:* 11.300.

11.436 RETAILING MANAGEMENT (3) The role and importance of retailing in a modern marketing oriented society. Concerned with the basic principles and techniques of retail merchandising and store operation. Emphasis is placed upon the major adaptations that managers of retailing institutions have had to make in response to the requirements of a dynamic environment. Usually offered alternate springs. *Prerequisite:* 11.300.

11.438 DISTRIBUTION SYSTEMS (3) Analysis and planning of marketing channels and physical distribution. Examines distribution systems serving consumer, industrial, government, and international markets. Includes both products and services, and considers viewpoints of manufacturers, wholesalers, and retailers. Usually offered alternate springs. *Prerequisites:* 11.300 and 11.301.

1.460 INSTITUTE ON PROPERTY MANAGEMENT I (3) Management of commercial, residential property. Rental values, neighborhood analysis, tenant selection, leasing, tenant and owner rela-

tionships. Final examination may be substituted for regular examination for Course No. 1 of Institute of Real Estate Management. Usually offered every term.

11.461 INSTITUTE IN REAL ESTATE APPRAISAL VIII (3) Official Study Course VIII of American Institute of Real Estate Appraisers. Applied principles and techniques for valuation of single family residential properties. Basic terminology and concepts, case studies. Usually offered every fall. *Prerequisite:* basic real estate experience.

11.470 URBAN DEVELOPMENT (3) Economic and other objectives in an urban society. The function of an urban economy and forces affecting urban development. Analyses of societal change, market operations, and public facilities management. Discusses rapidly changing society and associated land uses. Role of markets and government provision of public facilities. Usually offered every term.

11.471 HOUSING ECONOMICS AND POLICY (3) The housing sector in the national economy, operation of housing markets, and mortgage markets. The role of the private sector. Housing goals and policies and alternative programs to meet housing needs. Local government control through building codes and zoning. Current housing issues. Usually offered every term. *Prerequisite:* 11.470.

11.472 RESIDENTIAL DEVELOPMENT PROCESS (3) Historical perspective of land and property development; the economics of real estate housing development at the national, local, and site or parcel levels; multifamily, condominium, and factory-built housing construction; site selection, land planning, market analysis, zoning, building codes, construction techniques and materials, financing, merchandising, and management. Usually offered every spring.

11.476 REAL ESTATE INVESTMENT STRATEGY (3) Investment objectives, risks, and rewards. Resource characteristics and administration. Development decision and analysis, mortgage finance, cost and availability of funds, location analysis, property analysis, and valuation. Usually offered every term.

11.477 REAL ESTATE TRANSACTIONS (3) Principles and practices of listing real property, agreement of sale, title, transfer of ownership and interests; drawing documents; contracts, deeds, leases, financing, other instruments. Private and public property rights, liens, taxes, assessments, other claims on real estate. Mathematical computations and practice forms. Usually offered every term.

11.490 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (1-6)*

Graduate and Advanced Undergraduate Courses

BUSINESS ADMINISTRATION

10.554 PROBLEMS AND PROMISE OF PRODUCTIVITY (3) Meaning and measurement of productivity at the levels of the firm and the nation in both the public and private sectors and its significance in the progress of international economic and social development. Comparison of U.S. and foreign productivity enhancing practices and programs. Usually offered every spring.

10.590 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (1-6)*

11.561 INSTITUTE ON PROPERTY MANAGEMENT II (3) Advanced analysis of multiunit apartments, office buildings, shopping centers. Legal, tax, and financing aspects. Regional analysis and urban redevelopment. Creative management. Final examination may be substituted for regular course examination for Course No. 2 of the Institute of Real Estate Management on payment of a special fee. Usually offered every spring. *Prerequisite:* 11.460 or graduate standing.

11.563 INSTITUTE ON REAL ESTATE APPRAISAL IA (3) Official Study Course No. IA of American Institute of Real Estate Appraisers. Nature of real estate value; basic principles, methods, and techniques. Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. IA. Usually offered every fall. *Prerequisites:* completion of one real estate course or one year equivalent experience and permission of program director.

11.564 INSTITUTE ON REAL ESTATE APPRAISAL IB (3) Official Study Course No. IB of American Institute of Real Estate Appraisers. Nature of the real estate value: income approach to value and capitalization. Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. IA. Usually offered every spring. *Prerequisite:* 11.563 or passing AIREA Examination IA.

* See description under General Curriculum Information in this publication.

11.565 INSTITUTE ON REAL ESTATE APPRAISAL II (3) Case study Course II of American Institute of Real Estate Appraisers. Urban properties: appraising procedures, capitalization techniques, case studies, and problems. Credit applicable toward membership in Institute. Usually offered every fall. *Prerequisites:* 11.563 and 11.564 or passing AIREA Examination IA and IB.

11.566 INSTITUTE ON PROPERTY MANAGEMENT IV (3) Advanced analysis of office building. Developing, leasing, and management. Feasibility studies. Financing. Leasing techniques. Tenant suite development. Parking. Remodeling. Final examination may be substituted for regular course examination for Course IV of the Institute of Real Estate Management by payment of a special fee. Usually offered every fall. *Prerequisite:* 11.460 or graduate standing, or permission of Real Estate and Urban Development program director.

11.571 LANDLORD-TENANT RELATIONS IN LOW AND MODERATE INCOME HOUSING (3) Study of quality and quantity of housing and total living environment of families of low and moderate income and of relationships among residents, owners, and managers.

11.572 HOUSING LOW AND MODERATE INCOME FAMILIES (3) National housing goals and needs. Alternative strategies for obtaining housing goals. Federal low and moderate income housing program. Housing development process. Economic, social, legal, and technological constraints. Roles of various decision makers.

11.578 REAL ESTATE LAW (3) Survey of history and philosophy of real estate, concepts and principles, legal relationships and functions of law of real estate. Specific coverage of rights, fixtures, ownership, conveyance, acquisition, mortgages, agreements of sale, brokerage, landlord-tenant, zoning, eminent domain, and government regulations. Case study and research; field research. Usually offered every term.

11.590 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (1-6)*

11.592 INTERNSHIP IN URBAN AND REAL ESTATE PROBLEMS (3) By arrangement with director or associate director. Usually offered every term.

BUSINESS ADMINISTRATION: PUBLIC RELATIONS

11.590 INDEPENDENT READING COURSE IN PUBLIC RELATIONS (1-6)*

Graduate Courses

BUSINESS ADMINISTRATION

10.603 MANAGERIAL ACCOUNTING (3) Fundamentals, with concentration on the uses of accounting as a tool of management. Designed to give an understanding of the strengths and limitations of accounting as an information system. Topics have been selected from both financial and managerial aspects of accounting which focus upon the underlying conceptual framework of accounting, the role of accounting in management planning and control, and the usefulness of accounting data for evaluating the results of operations and in the decision making process. Usually offered every term.

10.604 BUSINESS IN ITS SOCIAL ENVIRONMENT (3) Analysis of the firm in its social setting. History of business in its social and legal environment. Relationship of business to the social, political, and economic philosophies, institutions, and groups which comprise its environment. Impact of its environment upon the present and future status of the firm. Usually offered every term.

10.605 FINANCIAL MANAGEMENT (3) Rigorous examination of financial management theory viewed from both corporation as user of funds and investor as supplier of funds. Emphasis upon interdependency between security analysis and cost of funds to corporation; introduction to security analysis, cost of capital, capital budgeting, and portfolio problems for the corporation and the investor. Usually offered every term. *Prerequisite:* 10.603.

10.606 MANAGERIAL STATISTICS (3) Statistical tools applied to the analysis and resolution of managerial problems. Use of standard computer programs. Usually offered every term.

10.607 DECISION SCIENCES FOR MANAGEMENT (3) Introduction of quantitative methods of operations research and its interdisciplinary aspects. Formulation and analysis of decision problems in terms of mathematical models appropriate to an environment of certainty and uncertainty. Emphasis on applications. Usually offered every term. *Prerequisite:* 10.606 or equivalent.

* See description under General Curriculum Information in this publication.

10.610 ORGANIZATIONAL THEORY AND BEHAVIOR (3) Examination of organizational theory and human behavior within organizations. Topics: authority and leadership, motivation and morale, work groups and group dynamics, communication, informal systems, planning and management by objectives, concepts of organizational development, organizational structure and processes, systems approach, decision making, control systems and organizational conflict and change. Usually offered every term.

10.611 MANAGERIAL ECONOMICS (3) Fundamental analytical tools of economics applicable to decision-making. Research of empirical and theoretical studies, evaluation of their application to economic analysis in management. Usually offered every term.

10.612 BUSINESS ECONOMICS (3) Macroeconomics analysis, study of determinants of national income, output, employment, and price levels. Covers national income accounting and classical as well as Keynesian economic models. Fiscal and monetary policy. Usually offered every term. *Prerequisite:* 10.611.

10.614 OPERATIONS AND SYSTEMS MANAGEMENT (3) The production process as an input-output model, emphasizing analysis rather than description. Production and quality control techniques are evaluated as operational decision tools. Usually offered every term. *Prerequisite:* satisfactory completion of all first-stage M.B.A. courses or equivalent.

10.634 ACCOUNTING INFORMATION SYSTEMS (3) Conceptual framework and modern techniques of analysis, designing, and implementing accounting information systems. Evaluation of computer and noncomputer based information systems for organizations of various types and sizes. Usually offered every fall. *Prerequisite:* permission of department chairman.

10.639 MANAGERIAL ACCOUNTING AND BUSINESS POLICY (3) Integration of managerial aspects of accounting, business policy, and the managerial functions of strategic decision making, planning, and control. Consideration of both quantitative and behavioral aspects. Case methodology. Usually offered every spring. *Prerequisite:* permission of department chairman.

10.648 LEGAL CONCEPTS OF BUSINESS ORGANIZATIONS (3) An intensive introduction to the nature of the law and the legal system. Usually offered every term.

10.650 FINANCIAL ACCOUNTING (3) Conceptual framework, methodological approaches, and problematic applications of financial accounting theory. Emphasis on the relationship between generally accepted accounting principles and the preparation of financial statements. Usually offered every term. *Prerequisite:* 10.603 or permission of department chairman.

10.651 FEDERAL INCOME TAXATION (3) A study of federal income tax laws relating to individuals, partnerships, and corporations. Usually offered every term. *Prerequisite:* 10.603 or permission of department chairman.

10.652 AUDITING (3) An advanced auditing course covering selected auditing topics and concepts at a level of sophistication and depth beyond that possible in a basic course. Usually offered every spring. *Prerequisite:* 10.449.

10.653 BUSINESS-GOVERNMENT RELATIONS (3) Government impact on business decisions. Statutory requirements, government regulations, control, and promotion of business. Corporate political activity. Current and future issues in business-government relations. Guest lecturers. Usually offered every term. *Prerequisite:* permission of instructor.

10.665 FINANCIAL STATEMENT ANALYSIS (3) Appraisal of prevailing techniques of statement analysis. Significance of "generally accepted accounting principles." Development of meaningful analytic methods from viewpoint of financial management. Usually offered every term. *Prerequisite:* 10.605.

10.666 LONG-TERM CAPITAL MANAGEMENT (3) In-depth examination of the investment, financing, and dividend policy decisions of the firm. Emphasis placed on both theoretical and applied techniques through case analysis and a financial simulation. Usually offered every term. *Prerequisite:* 10.605.

10.667 WORKING CAPITAL MANAGEMENT (3) Managerial knowledge of money market from viewpoint of financial manager in meeting short-term requirements and investing temporarily excess idle funds; means of investing idle funds commensurate with risk and return; emphasis on techniques used in management of corporate, short-term investment portfolio. Usually offered every term. *Prerequisite:* 10.605.

- 10.668 ADVANCED INVESTMENT ANALYSIS (3)** Critical evaluation of current methods of securities analysis and selection. Investment theories and timing. Portfolio construction and management. Usually offered every term. *Prerequisite:* 10.605.
- 10.669 INTERNATIONAL FINANCE (3)** Financial management of multinational enterprises. Topics include the international monetary system, institutional factors in multinational business finance, financial decision making in multinational firms, and international capital markets. Usually offered every spring. *Prerequisite:* 10.605.
- 10.671 COMMERCIAL BANKING POLICIES (3)** Factors determining management policies, and services offered by individual banks. Internal: capital resources, market development, profitability of functions, relations to other banks. External: government regulation, economic conditions. For present and prospective bank officers. Usually offered every term. *Prerequisite:* 10.605.
- 10.680 REGULATION AND CONTROL OF BUSINESS: THEORY AND PRACTICE (3)** Theory and practice of government regulation and control of business. Antitrust, administrative enforcement, and rule making. Impact of regulation and control on decision making. Future trends in regulation and control. Usually offered every spring. *Prerequisite:* 10.604 or 10.653.
- 10.690 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (1-6)***
- 10.694 SEMINAR IN PERSONNEL RESOURCES TRAINING AND DEVELOPMENT (3)** To analyze current problems and issues in personnel training and development at all organizational levels, with emphasis on middle management development. Usually offered every spring. *Prerequisite:* permission of instructor.
- 10.695 THE LEGAL ENVIRONMENT OF INDUSTRIAL REGULATIONS (3)** To examine the legal regulation of collective bargaining by analyzing legislative acts, judicial decisions, and administrative determinations that define rights and govern behavior of employers and unions in contemporary industrial society. Usually offered every spring. *Prerequisite:* permission of instructor.
- 10.697 COLLECTIVE BARGAINING IN THE PRIVATE SECTOR (3)** To examine management and union philosophies, strategies, and tactics in the collective bargaining process through the use of case studies. Usually offered every fall. *Prerequisite:* 10.695 or permission of the instructor.
- 10.701 SEMINAR IN CORPORATE PUBLIC AFFAIRS (3)** Corporation in its political environment. Corporate political and community problems. Mission of the public affairs department and program. Washington and state capitol representation. Usually offered every fall. *Prerequisite:* 10.604 or 10.653.
- 10.705 SEMINAR IN CURRENT BUSINESS-GOVERNMENT RELATIONS PROBLEMS (3)** In-depth study of current problems involving business and government. Topics to be determined. Individual study and research. Emphasis on impact of current problems on corporate-government relations. Usually offered every fall. *Prerequisite:* 10.604 or 10.653.
- 10.706 SEMINAR IN CORPORATE-GOVERNMENT POLICY (3)** Philosophy and practice of business decisions influenced by public policy. Emphasis on case problems. Reading and individual research into in-depth analysis of the concepts and issues of private enterprise and public policy. Usually offered every spring. *Prerequisite:* permission of instructor.
- 10.710 CONTEMPORARY ACCOUNTING PROBLEMS (3)** Considers the nature of current accounting principles and the theoretical foundation and conflicts relating to selected contemporary problems in accounting. Usually offered every fall. *Prerequisite:* permission of instructor.
- 10.711 SEMINAR IN ACCOUNTING THEORY (3)** Development of accounting theory. Analysis of current accounting problems and review of relevant literature. Usually offered every spring. *Prerequisite:* 10.710
- 10.755 MANAGEMENT OF THE ENTERPRISE (3)** Application of theory and practice to simulated problems in general management. Involvement in problem-solving environment intended to integrate knowledge in various functional areas of business and provides direct management experience. Provides opportunities to study and experience process of introducing planned organizational change. Usually offered every term. *Prerequisite:* completion of graduate core course requirements or permission of instructor.

10.765 SEMINAR IN FINANCE (3) Rigorous examination of current issues and recent developments in corporate financial management, investments, and commercial banking. Review of literature to cover total area of business finance. Usually offered every spring and every summer. *Prerequisite:* four advanced finance courses or permission of departmental director.

10.791 ISSUES IN PERSONNEL RESOURCES ADMINISTRATION (3) To analyze functional issues and current developments in administering personnel resources of contemporary private sector organizations. Usually offered every fall. *Prerequisite:* permission of the instructor.

10.792 SEMINAR IN INDUSTRIAL RELATIONS ADMINISTRATION (3) To conduct independent research into current problems, issues, and developments in industrial relations administration. *Prerequisite:* permission of instructor.

10.795 PERSONNEL RESOURCE PLANNING (3) To survey the concepts and techniques of personnel resource planning, with special emphasis on projections of manpower requirements. Usually offered every summer. *Prerequisite:* permission of instructor.

11.601 MARKETING MANAGEMENT (3) Introduction to advanced theory and systems-oriented analytical methodology required for effective marketing management decision making. Viewpoint is that of marketing executive whose responsibility is coordination of objectives and resources of firm, whose strategies and tactics relate to the basic administrative processes of analysis, organization, planning, and control. Usually offered every term.

11.602 CONSUMER BEHAVIOR (3) Examines various processes and factors which influence consumer motivation and behavior. Explores consumer decision making processes and their marketing implications. Usually offered every term. *Prerequisite:* 11.601 or permission of instructor.

11.603 INDUSTRIAL AND CONSUMER MARKETS (3) Covers nature and extent of markets for industrial and consumer goods and services; methods of anticipating and meeting industrial, governmental, institutional, and consumer needs; market targeting, development of marketing mixes. Usually offered every term. *Prerequisite:* 11.601 or permission of instructor.

11.604 RESEARCH FOR MARKETING MANAGEMENT (3) Emphasis placed on underlying scientific principles and processes that make marketing research an applied science. Information collection, interpretation, and presentation for shaping marketing objectives, policies, and planning. Emphasis placed on the application of concepts, methods, and knowledge of the quantitative and behavioral disciplines. These learning objectives facilitated through research projects. Usually offered every term. *Prerequisites:* 10.606, 11.602 and 11.603.

11.605 PROMOTION MANAGEMENT (3) Problems involved in management of promotional operations in the firm including advertising, sales promotion, merchandising, personal selling, public relations, and institutional promotion (individually, and as integrated into strategically coordinated promotional programs) are approached from managerial point of view. Course foundational for students seeking careers in sales, advertising, or public relations. Usually offered every term. *Prerequisite:* 11.601 or permission of instructor.

11.606 DISTRIBUTION CHANNELS MANAGEMENT (3) Examination of marketing managerial issues and problems in distribution through use of an integrated channel of distribution approach. Investigation of problems involved in relation to trade channels for goods and services, and subsequent management of those channels for optimum efficiency. Viewpoints of manufacturer, wholesaler, and retailer represented. Usually offered every term. *Prerequisite:* 11.603.

11.607 PROBLEMS IN PRICING (3) Product development and planning. Cost analysis. Pricing policies and practices in marketing of goods and services. New product introductions and life cycle planning. Product modification. Usually offered every term. *Prerequisite:* 11.603.

11.627 MANAGER IN THE INTERNATIONAL ECONOMY (3) The study from a managerial aspect, the practices, and principles involved in conducting business across national boundaries; the principles in international agreements and in situations and the considerations resulting from the environmental differences among nations. Usually offered every term.

11.628 INTERNATIONAL MARKETING (3) Origins and development of marketing; modern advanced-country technology; international deployment of market research, physical distribution management, sales personnel selection, training and supervision methods; media selection; advertising themes and methods of presentation; planning and projective budgeting. Usually offered every fall.

11.629 THE MULTINATIONAL FIRM (3) History, legal environment, organization and control, finance,

marketing, production and procurement, research and development, personnel business-government, and business-public relations. Usually offered every spring.

11.640 RESEARCH METHODS IN BUSINESS (3) Principles of acquiring and processing data and presenting information. Variety of research methods surveyed to analyze form of hypothesis development, methods of experimental design and approaches to data reduction and interpretation. Application to data analysis of business problems. Students design, process, and evaluate research proposals. Usually offered every spring. *Prerequisite:* completion of all first-stage M.B.A. courses or equivalent.

11.650 PRINCIPLES OF PUBLIC RELATIONS (3) Historical development of public relations; economic and social factors in relations between public and media in formation of public opinion. Case studies of current practices. Usually offered every term.

11.651 PUBLIC RELATIONS IN BUSINESS (3) Case studies in business and industrial relationships with various publics, e.g., labor, trade, dealer, customer, stockholder, and community. Usually offered every spring. *Prerequisite:* 11.650.

11.652 PROMOTIONAL CAMPAIGNS (3) Case studies of promotional methods of business, government and social organizations; development of promotional campaigns by each student for an institution in Washington, D.C. Usually offered every spring. *Prerequisite:* 11.650.

11.653 PUBLIC RELATIONS ABROAD (3) Problems of public relations in international affairs; case studies of American business public relations practices in other countries. *Prerequisite:* 11.650.

11.683 REAL ESTATE MARKET ANALYSIS (3) Analysis of real estate demand and supply in local market. Sources of information. Analysis of population, changing city, and housing markets. Forecasting. Usually offered every spring.

11.684 MORTGAGE BANKING (3) Financing methods. Sources of funds, mortgage and capital markets, and federal agencies. Direct lending. Required of students electing an M.B.A. field in real estate and urban development planning. Usually offered every spring. *Prerequisite:* 10.605.

11.685 LAND PLANNING AND USE (3) Land values and utilization. Location problems of consumers, businesses, industries and households. Changes in land use patterns produced by market forces and public policies. Usually offered every fall.

11.690 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (1-6)*

11.701 SEMINAR IN MARKETING THEORY (3) Capstone course for advanced degree in marketing and intended to ensure full understanding of concepts and theories of marketing and their interrelations in application; knowledge of current research and advances in the field; to develop skill in critical evaluation of the concepts and theories and their application in solving business problems. Usually offered every term. *Prerequisite:* permission of department director.

11.726 SEMINAR IN INTERNATIONAL BUSINESS (3) Actual experiences of identified companies (to permit follow-up) and of public bodies (port authorities, planning commissions, tourist promotion associations). Usually offered every spring. *Prerequisite:* 11.629.

11.776 SEMINAR IN REAL ESTATE ADMINISTRATION (3) Capstone seminar dealing with problems of managing real estate resources and related business enterprises. Management of urban development process in context of doing business in a changing environment. Decision making in an uncertain economy. Individual field research projects. Required for all graduate real estate majors. Usually offered every spring.

11.778 SEMINAR IN LAND PLANNING AND USE (3) Land planning and use from an interdisciplinary point of view. Issues of urban development and role of land use control. Land economics, government, planning, and private sector operation. Metropolitan area problems. Usually offered every fall.

11.779 SEMINAR IN HOUSING AND URBAN DEVELOPMENT (3) Economic environment of urban development and development trends. Economic base, location theory, role of the transportation system in development, local government organization and finance and the fiscal problems of cities. The operation of housing markets, neighborhood change, and government housing policies and programs. Usually offered alternate falls.

11.792 SEMINAR IN MANAGEMENT PLANNING AND CONTROL (3) Concepts and requirements of planning and control systems. Analytical tools required for output-oriented program structure.

* See description under General Curriculum Information in this publication.

Application of measurements to management information systems with emphasis on interdependence between quantitative and behavioral fields. Comparison between market and nonmarket oriented budgetary processes. Usually offered every term. *Prerequisite*: completion of all first-stage M.B.A. courses or equivalent.

11.794 SIMULATION AND GAMING (3) Models and model building; simulations of continuous and discrete systems; business games. Comparisons evaluated between analytical models and simulations. Usually offered every spring. *Prerequisite*: completion of all first-stage M.B.A. courses or equivalent.

11.795 SEMINAR IN OPERATIONS ANALYSIS (3) Capstone seminar centered around real-life research projects. Students formulate and complete operational applications of management science techniques. Supervised research and discussions. Usually offered every spring. *Prerequisite*: instructor's permission.

BUSINESS ADMINISTRATION: PUBLIC RELATIONS

13.655 PUBLIC RELATIONS LAW (3) Legal implications and consequences of work of the public relations practitioner. Law that practitioner must be aware of to do his work intelligently. Usually offered every term. *Prerequisite*: 11.650.

13.656 PUBLIC RELATIONS AND GOVERNMENT (3) Analysis of public information programs conducted by governmental agencies to influence various publics and institutions on key government issues. Intensive research and journalistic reporting of actual programs in Washington, D.C., during the semester. Usually offered every term. *Prerequisite*: 11.650.

13.657 PUBLIC RELATIONS FOR NONPROFIT ORGANIZATIONS (3) Public relations practice of labor, farm, welfare, hospital, and educational institutions. How the nonprofit sector interacts with business, government, and the media. Usually offered every term.

13.658 PUBLICITY AND PRINT MEDIA (3) Designed to teach basics of publicity writing, including the preparation of press releases, magazine query letters, article outlines, and articles and speech research and writing. Usually offered every fall.

13.659 PUBLICITY AND AUDIO-VISUAL MEDIA (3) Designed to teach basics of publicity writing including preparation of press releases, spot announcements for radio and television, and techniques in preparing audio and visual material for radio and television use. Usually offered every spring.

13.660 PROPAGANDA AND PERSUASION (3) Attitudes and public opinion; how they have been influenced in past and present through propaganda techniques. Specific topics include formation of attitudes, attitude change, nature of public opinion, public opinion measurement, how PR practitioner attempts to persuade, historical uses of propaganda, and propaganda—good, bad, or neither. Usually offered every spring. *Prerequisite*: 11.650.

13.661 HISTORY OF PUBLIC RELATIONS (3) Development of public relations in U.S. during twentieth century; pioneer PR practitioners and their philosophies; study of different approaches to the practice. Usually offered every fall.

13.662 PHOTOGRAPHY FOR THE PRACTITIONER (3) Enhancing public relations efforts through photography. Developing creative and technical skills in photography for the house publications, annual reports, brochures, and news releases. Usually offered every fall.

13.663 PUBLIC OPINION POLLING RESEARCH (3) An intensive study of nature of public opinion, cross-section surveys, structure of questionnaires, and analysis of data. Practical experience in constructing and carrying out a model public opinion poll. Usually offered every spring.

13.690 INDEPENDENT STUDY PROJECT IN PUBLIC RELATIONS (1-6)*

13.740 SEMINAR IN PUBLIC RELATIONS (3) Formulation of policies for long-range public relations programs. Usually offered every fall. *Prerequisite*: permission of director of public relations program.

13.789 PUBLIC RELATIONS RESEARCH METHODS (3) Fundamentals of research in public relations. Required of all master's degree candidates. Usually offered every term. *Prerequisite*: permission of instructor.

13.792 DIRECTED RESEARCH IN PUBLIC RELATIONS (3) Application of research methods to study of a specific problem in public relations. Required of all master's degree candidates. Usually offered every term. *Prerequisite*: grade of B or better in 13.789.

* See description under General Curriculum Information in this publication.





Division of Continuing Education

DEAN Thomas A. Coffey

Assistant Dean Michael J. Orlando

Director, Extended-Campus Programs Stephen Sugar

Director, Summer Sessions Jennifer O. Murphy

Director, STRIDE Judy Newhouser

The Division of Continuing Education serves the educational needs of adults who seek professional or personal advancement through full- or part-time study. Some adults enroll in the Division of Continuing Education to complete a degree. Many students take courses to meet professional requirements of their career field, while others take courses for personal enrichment.

The Division of Continuing Education offers a wide range of academic programs geared to meet highly diversified student needs. These programs include certificates both on undergraduate and graduate levels, and informal seminars and workshops. The certificate programs are offered for specialized preparation in a particular career field. Under certain conditions, certificate work may be applied towards the awarding of a degree.

DEGREE PROGRAMS The Division of Continuing Education offers an Associate in General Studies degree and a Bachelor of Science in General Studies degree. As of Fall 1978, no new students will be admitted to these two degree programs, but will instead be referred to the Associate in Arts and Bachelor of General Studies degree programs offered through the College of Arts and Sciences.

MOBILITY CLAUSE The Division of Continuing Education assists highly mobile students to take advantage of more flexible residency requirements in order to complete undergraduate degrees at locations distant from The American University campus. See details in the General Studies degree programs section below.

UNDERGRADUATE CERTIFICATE PROGRAMS The Division of Continuing Education in cooperation with other schools and departments of The American University, offers undergraduate certificate programs in Technology of Management, Real Estate, and Career Development.

GRADUATE CERTIFICATE PROGRAMS The Division of Continuing Education, in cooperation with other schools and departments of The American University, offers graduate certificate programs in Applied Economics, Public Relations, Government Public Information, Professional Development, Real Estate and Urban Development, Science/Technology Policy and Administration, Computer Systems Applications, Management Information Systems, Operations Research, Scientific and Technical Information Systems, Environmental Systems Management (with further specialization in either Ocean Affairs or Toxic and Hazardous Materials), Urban Affairs, and American Politics and Policy.

CERTIFICATES OF ADVANCED GRADUATE STUDY The Division of Continuing Education in

cooperation with other schools and departments of The American University, offers certificates of advanced graduate study in Computer Systems Applications, Operations Research, Scientific and Technical Information Systems, Management Information Systems, Science/Technology Policy and Administration, and Environmental Systems Management (with further specialization in Ocean Affairs or Toxic and Hazardous Materials).

COURSES BY NEWSPAPER, RADIO, AND TELEVISION The Division of Continuing Education sponsors credit courses offered by the communication media which can be pursued on an individual basis.

INFORMAL SEMINARS AND WORKSHOPS The Division of Continuing Education sponsors various learning experiences offered throughout the year to meet the changing needs of the community. Continuing Education Units (CEU's) are awarded for many of these learning experiences.

EXTENDED-CAMPUS OFFERINGS The Division of Continuing Education administers the offering of credit courses and informal seminars and workshops throughout the Washington metropolitan area. The various programs are designed to meet the educational and personal enrichment needs of students who wish to attend the University on a part-time basis at a center near their home or place of work.

STRIDE Through its STRIDE program, the Division of Continuing Education offers integrated academic programs for employee-sponsored students who lack the educational qualifications for promotion within their organization. Degree and nondegree programs in all of the colleges and schools of the University are open to qualified STRIDE participants. STRIDE/AU serves as a focal point for participating agencies or industries and provides academic counseling, placement testing, and tutorial services for all STRIDE students.

SUMMER SESSIONS The Office of Summer Sessions administers five separate sessions of daytime and evening courses offered on campus during the summer months, as well as numerous study abroad offerings, the Vacation College, and other special activities. Students may select from over 500 intensive courses and from more than 30 academic disciplines. Courses carry regular University course credit and may be taken in degree or nondegree status.

Undergraduate Program in General Studies: Associate Degree

ADMISSION TO THE PROGRAM Any student admitted to degree status at The American University is eligible for admission to this program. As of Fall 1978, no new students will be admitted to this program, but will be referred instead to the Associate in Arts degree offered by the College of Arts and Sciences.

Set 23.100, 23.101.

Requirements

Required An additional 54 semester hours selected from the undergraduate course offerings of the University and approved by an academic advisor in the Division of Continuing Education.

Options

DEGREE OBJECTIVE Students receive an Associate in General Studies degree with a major in General Studies.

Undergraduate Program in General Studies: Bachelor of Science Degree

ADMISSION TO THE PROGRAM Any student admitted to degree status at The American University is eligible for admission to this program. As of Fall 1978, no new students will be admitted to this program, but will be referred instead to the proposed Bachelor of General Studies degree to be offered by the College of Arts and Sciences.

Required Students must complete a concentration of at least 6 courses in the social sciences, including at least 4 courses at the 300-level or above. Courses selected for the concentration must be approved by the student's advisor. In addition, students must take at least 10 elective courses in the social sciences.

Options

Special Opportunities Students in this program may exercise the Mobility Clause option in lieu of satisfying the standard University residence requirement. This option provides that if the student moves to a location in excess of 75-mile radius of the University's campus, the student may complete the degree

program at an American University approved institution and still receive an American University degree. The only restriction is that eight courses must be completed at The American University, four of which must be courses at the 300-level in the primary area, at some time during the program. A retention fee must be paid to The American University for each semester during which the student pursues the program at another institution or is inactive.

The American Association of State Colleges and Universities, acting in behalf of the American Council on Education and the Department of Defense, has designated The American University as a Serviceman's Opportunity College.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science in General Studies with a major in Social Science.

Undergraduate Certificate in Technology of Management

ADMISSION TO THE PROGRAM Open to students with high school diploma or Graduate Equivalency Diploma (GED).

Course Requirements 10.240, 41.100, 55.310, 55.337, 42.202, 55.333 (or 55.334 or 55.335); two courses from: 55.331, 55.360, and 55.380.

Special Opportunities Most courses are offered at extended-campus locations.

DEGREE OBJECTIVE Students receive an Undergraduate Certificate in Technology of Management.

Undergraduate Certificate in Real Estate

ADMISSION TO THE PROGRAM Open to students with a high school diploma or Graduate Equivalency Diploma (GED).

Course Requirements (1) Prerequisites: 19.101, 19.102, 11.470, 11.471 (or 11.472) and 11.476. (2) Advanced Courses: 11.477, 11.572, (or 11.571), 11.578, and 11.460 (or 11.563). Substitutions (not waivers) may be made for students who have completed equivalent non-credit courses from specified professional organizations. (3) Internship: 11.592 (three semester hours). (May be waived for students with two years full-time or four years part-time experience in real estate.)

DEGREE OBJECTIVE Students receive an Undergraduate Certificate in Real Estate.

Undergraduate Certificate in Career Development

ADMISSION TO THE PROGRAM Open to students with a high school diploma or Graduate Equivalency Diploma (GED).

Course Requirements 23.100, 23.101 (or approved equivalent), and 18 additional elective semester hours.

DEGREE OBJECTIVE Students receive an Undergraduate Certificate in Career Development.

Graduate Certificate in Applied Economics

ADMISSION TO THE PROGRAM Open to students with a bachelor's degree.

Course Requirements (1) Prerequisites: 19.101, 19.102, 19.300, 19.301, and 19.310 (or 42.202) (May be waived on basis of prior education or experience.) (2) Graduate Courses: 19.500, 19.501, 19.522, plus three semester hours from 19.523, 19.532, 19.541, 19.544, 19.551, 19.560, and 19.571; and three semester hours from 19.510, 19.521, 10.603, 10.605, 12.661, and 19.785. (Other approved electives may be substituted.)

DEGREE OBJECTIVE Students receive a Graduate Certificate in Applied Economics.

Graduate Certificate in Public Relations

ADMISSION TO THE PROGRAM Open to students with bachelor's degree, basic writing skills, and ability to type.

Course 11.650, 11.652, 13.658 (or 13.659), and six semester hours from
Requirements 11.651, 11.653, 13.655, 13.656, 13.657, 13.660, 13.661, 13.662, and 13.663.

Special All courses are offered at extended-campus locations
Opportunities

DEGREE OBJECTIVE Students receive a Graduate Certificate in Public Relations.

Graduate Certificate in Government Public Information

ADMISSION TO THE PROGRAM Open to students with bachelor's degree, basic writing skills, and ability to type.

Course 11.650, 13.655, 13.656, and six semester hours from 11.651, 11.652,
Requirements 11.653, 13.657, 13.658, 13.659, 13.660, and 13.661.

Special All courses are offered at extended-campus locations.
Opportunities

DEGREE OBJECTIVE Students receive a Graduate Certificate in Government Public Information.

Graduate Certificate in Professional Development

ADMISSION TO THE PROGRAM Open to students with a bachelor's degree.

Course 15 graduate semester hours, designed for professional development of
Requirements student in consultation with a DCE academic advisor.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Professional Development.

Graduate Certificate in Real Estate and Urban Development

ADMISSION TO THE PROGRAM Open to students with a bachelor's degree.

Course (1) Prerequisites: 11.477, 11.572 (or 11.460 or 11.563) and 11.578.
Requirements (May be waived by persons with equivalent course work or experience.)
(2) Advanced Courses: 11.561, (or 11.564 and 11.565), 11.683, 11.684, 11.685, and 11.776 (or 11.778 or 11.779). Substitutions (not waivers) may be made for those who have completed equivalent noncredit courses through specified professional organizations.
(3) Internship: 11.592 (three semester hours). May be waived for students with two years full-time or four years part-time experience in real estate.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Real Estate and Urban Development.

Graduate Certificate in Science/Technology Policy and Administration

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course (1) Prerequisites: 55.411 (or 41.100), 42.400 and (or 42.300). (2)
Requirements Graduate Courses: 55.513 and 55.570, plus nine semester hours from 53.687, 55.571, 55.671, 55.672, and 55.673.

Special Most courses available at extended-campus locations.
Opportunities

DEGREE OBJECTIVE Students receive a Graduate Certificate in Science/Technology Policy and Administration.

Graduate Certificate in Computer Systems Applications

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 (or
Requirements 41.100), and 42.400 (or 42.300); 55.310 may be waived for the student who has had substantial experience in computer data-handling, such as:

two years of approved job-related computer experience. (2) Graduate Courses: six semester hours from 55.511 (or 55.512) and 55.530, and nine semester hours from 55.531, 55.630, 55.632, 55.633, 55.635, and 55.637.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Computer Systems Applications.

Graduate Certificate in Management Information Systems

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 (or 41.100), and 42.400 (or 42.300); 55.310 is waived for the student who has had substantial experience in computer data-handling, such as two years of approved job-related computer experience. (2) Graduate Courses: 55.511, 55.530, 55.660, and six semester hours from 55.560, 55.561, 55.562, 55.563, 55.661, and 55.665.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Management Information Systems.

Graduate Certificate in Operations Research

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course Requirements (1) Prerequisites: 41.222, 42.400 (or 42.300). (2) Graduate Courses: 55.514, 55.542, and nine semester hours from 55.632, 55.641, 55.642, 55.645, and 55.646.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Operations Research.

Graduate Certificate in Scientific and Technical Information Systems

ADMISSION TO PROGRAM Open to students with bachelor's degree.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.335), 55.411 (or 41.100), and 42.400 (or 42.300); 55.310 may be waived for the student who has had substantial experience in computer data handling, such as two years of approved job-related computer experience. (2) Graduate Courses: 55.511 (or 55.512), 55.530, and nine semester hours from 55.550, 55.650, 55.653, and 55.656.

Special Opportunities Most Courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Scientific and Technical Information Systems.

Graduate Certificate in Environmental Systems Management

TRACKS General Environmental Systems Management, Toxic and Hazardous Materials, and Ocean Affairs.

ADMISSION TO THE PROGRAM Open to students with bachelor's degree and an adequate background in basic undergraduate sciences.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 (or 41.100), and 42.400 (or 42.300); 55.310 may be waived for student who has had two years of approved job-related computer experience, or substantial experience in computer data-handling. (2) Graduate Courses: 55.511 and (a) General Environmental Systems and Ocean Affairs Tracks: 15 semester hours from 55.580, 55.581, 55.582, 55.683,

55.684, 55.685, 55.780, 31.571, 55.581, and 55.590; or (b) Toxic and Hazardous Materials Track: 15 semester hours from 55.680, 55.681, 55.682, 55.683, 55.684, 55.780, 31.571, 55.581, and 55.590.

Special
Opportunities

Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Environmental Systems Management.

Graduate Certificate in Urban Affairs

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course 53.650 and 15 semester hours from 53.680, 54.610, 54.680, and
Requirements 54.684 (or 54.780), plus one 3 hour related graduate elective from sociology, business, or economics.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Urban Affairs.

Graduate Certificate in Politics and Policy

TRACKS American Politics, Policy Analysis, and Political Development

ADMISSION TO THE PROGRAM Open to students with bachelor's degree.

Course (1) American Politics Track: 53.650, 53.651, 53.652, 53.653, and three
Requirements semester hours from 53.654, 53.655, and 53.656. (2) Policy Analysis Track: 53.650, 53.500, 53.682, 53.683 (prerequisite 53.500), and 53.689. (3) Political Development Track: 53.650, 53.630, 53.631, and six semester hours from: 53.632, 53.637, and 53.639.

DEGREE OBJECTIVE Students receive a Graduate Certificate in Politics and Policy.

Certificate of Advanced Graduate Study in Scientific and Technical Information Systems

ADMISSION TO THE PROGRAM Open to students with a master's degree, not necessarily in the same field as the certificate.

Course (1) Prerequisites: 55.310, 55.333 (or 55.335), 55.411 (or 41.100), and
Requirements 42.400 (or 42.300). (2) Main Field of Concentration: 15 semester hours taken from the scientific and technical information systems field (may include up to six semester hours of independent research). (3) Minor Field of Concentration: nine semester hours taken from any CTA field or from other American University schools or departments. (4) Electives: six semester hours as approved by the Scientific and Technical Information Systems Program Director.

Special
Opportunities

Many courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Scientific and Technical Information Systems.

Certificate of Advanced Graduate Study in Operations Research

ADMISSION TO PROGRAM Open to students with a master's degree, not necessarily in the same field as the certificate.

Course (1) Prerequisites: 41.222, 42.400 (or 42.300). (2) Graduate Courses
Requirements (a) Main Field of Concentration: 15 semester hours taken from the operations research field (may include up to 6 semester hours of independent research). (b) Minor Field of Concentration: 9 semester hours taken from any CTA field or from approved programs in other American University schools and departments. (c) Electives: 6 semester hours as approved by the Operations Research Program Director.

Special
Opportunities

Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Operations Research.

Certificate of Advanced Graduate Study in Computer Systems Applications

ADMISSION TO THE PROGRAM Open to students with a master's degree, not necessarily in the same field as the certificate.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 (or 41.100), and 42.400 (or 42.300). (2) Graduate Courses: (a) Main Field of Concentration: 15 semester hours taken from the computer systems applications field (may include up to 6 semester hours of independent research). (b) Minor Field of Concentration: 9 semester hours taken from any CTA field or from approved programs in other American University schools and departments. (c) Electives: 6 semester hours as approved by the Computer Systems applications Program Director.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Computer Systems Applications.

Certificate of Advanced Graduate Study in Environmental Systems Management

TRACKS General Environmental Systems Management, Toxic and Hazardous Materials, and Ocean Affairs.

ADMISSION TO THE PROGRAM Open to students with a master's degree, plus an adequate background in basic undergraduate science courses.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 (or 41.100), and 42.400 (or 42.300). (2) Graduate Courses: (a) Main Field of Concentration: 15 semester hours taken from one of the following areas: environmental systems management, ocean affairs, toxic and hazardous materials (may include up to 6 semester hours of independent research). (3) Minor Field of Concentration: 9 semester hours taken from any CTA field or from approved programs in other schools and departments. Electives: 6 semester hours as approved by the Environmental Systems Management Program Director.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Environmental Systems Management.

Certificate of Advanced Graduate Study in Science/Technology Policy and Administration

ADMISSION TO THE PROGRAM Open to students with a master's degree, not necessarily in the same field as the certificate.

Course Requirements (1) Prerequisite: 55.513. (2) Graduate Courses: (a) Main Field of Concentration: 12 semester hours taken from the science/technology policy and administration field (may include up to 6 semester hours of independent research). (b) Minor Field of Concentration: 9 semester hours from any CTA field or from approved programs in other American University schools and departments. (c) Electives: 6 semester hours as approved by the Science/Technology Policy and Administration Program Director.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Science/Technology Policy and Administration.

Certificate of Advanced Graduate Study in Management Information Systems

ADMISSION TO THE PROGRAM Open to students with a master's degree, not necessarily in the same field as the certificate.

Course Requirements (1) Prerequisites: 55.310, 55.333 (or 55.334 or 55.335), 55.411 or (41.100), 42.400 (or 42.300). (2) Graduate Courses: (a) Major Field of Concentration: 15 semester hours taken from management information systems field (may include up to 6 semester hours of independent research). (b) Minor Field of Concentration: 9 semester hours taken from approved programs in other American University schools and departments. (c) Electives: 6 semester hours as approved by the Management Information Systems Program Director.

Special Opportunities Most courses available at extended-campus locations.

DEGREE OBJECTIVE Students receive a Certificate of Advanced Graduate Study in Management Information Systems.

Courses by Radio, Newspaper, and Television

COURSES BY RADIO The Division of Continuing Education offers four fully accredited courses via The American University radio station, WAMU-FM, 88.5 on the dial.

55.583 ENERGY AND THE HUMAN ENVIRONMENT (3) This course explores technological issues which underlie present supply capabilities for most energy sources.

55.584 WATER AND THE HUMAN ENVIRONMENT (3) This course incorporates concepts from many academic areas, including ecology, technology, economics, law, and political dynamics.

55.589 ECOLOGY AND THE HUMAN ENVIRONMENT (3) A graduate or advanced senior level course broadcast twice weekly. Lectures by Dr. Martha Sager, Professor of Environmental Systems Management, offer fundamental information on ecology and explore many related topics, i.e., health and drugs, food additives, nuclear and fossil energy, pesticides and food, the politics of pollution.

75.563 WOMEN IN TODAY'S ENVIRONMENT (3) This course is directed toward the structural, functional, emotional, and societal aspects of women in today's environment. Broadcast twice weekly, this graduate level course may also be taken by upper-level undergraduates.

COURSES BY NEWSPAPER Under a grant by the National Endowment for the Humanities, and in coordination with *The Washington Post* or *The Evening Star*, the Division of Continuing Education presents each semester, as available, an accredited course by newspaper. Through a series of articles prepared by distinguished educators and scholars, the student is presented timely and thought-provoking material on a selected contemporary subject. In addition to the weekly newspaper articles, study guides and texts are used and the student is required to participate in an announced number of on-campus conferences—usually on Saturday mornings. The courses by newspaper usually carry full undergraduate credit.

COURSES BY TELEVISION Television courses for credit will periodically be offered by The American University in cooperation with a local Public Broadcasting System station. In the fall of 1977, it is anticipated that a television course "The Age of Uncertainty: The Growth and Crisis of Industrial Society" by John Kenneth Galbraith will be offered. In 1978, a television course on child development, based on the text "A Child's World" by Diane Papalia and Sally Olds, will probably be offered. The courses by television usually carry full undergraduate credit.





Washington College of Law

INTERIM DEAN Nicholas N. Kittrie

Associate Dean for Faculty Affairs

Associate Dean Bert B. Lockwood, Jr.

Director of Clinical Programs Elliott S. Milstein

Director of Institute for Advanced Studies in Justice Nicholas N. Kittrie

Law Librarian Patrick E. Kehoe

The Washington College of Law was established in 1896, primarily to permit women, as well as men, to pursue professional studies in law. The founding principle of equal opportunity continues to play a primary role in the school's operation and development.

Admission to the Washington College of Law is highly selective, with over 650 students in full and part-time programs of study. The school seeks a national student body. The program is designed to prepare graduates to be contemporary members of the learned profession of the law and to continue this learning throughout life. The school looks for potential leaders from all cultural backgrounds for preparation in dealing with recognized problems of the present and anticipated problems of the future.

The Washington College of Law is a part of The American University and includes a library of over 100,000 volumes. It is noted for its contemporary curriculum, close working relations with faculty, clinical programs, and its law-related institute.

The academic program is enriched by proximity to the center of the nation's legal institutions. First hand glimpses of legal processes, their analysis, and the opportunity to work within these processes make the study of law in the nation's capital especially rewarding. Whether listening to arguments of the nation's best lawyers before the Supreme Court or observing the process of decision within the committees of Congress, the administrative agencies of government, or international agencies, law students will be immersed from the outset in rigorous critical analysis and in the practical arts of the profession. The school is fully accredited by the American Bar Association, the American Association of Law Schools, and the New York Board of Regents. The course of study requires three full-time years, or the equivalent, at the end of which the J.D. degree is awarded.

For more information as to program and admissions, write for separate catalogue to Director of Admissions, Washington College of Law, The American University, Massachusetts and Nebraska Avenues, N.W., Washington, D.C. 20016.



Lucy Webb Hayes School of Nursing

DEAN Laura B. Kummer

FULL-TIME FACULTY

Professor L. B. Kummer

Associate Professor D. Y. Mosley, G. L. Dhillon, P. O. Finn, J. Gimble, L. B. Neiswender, M. R. Randall

Assistant Professor J. Sands, G. C. Keidel, D. Sell, N. Davenport, J. Hallal, H. U. Black

The philosophy of the Lucy Webb Hayes School of Nursing is consistent with the philosophy and purposes of The American University. In relation to the profession of nursing, the faculty believes that it: (1) is a practice discipline which has as its fundamental concern the optimal quality of human life; (2) consists of dynamically interrelated theoretical and service components; (3) strives to prevent illness, promote, maintain, and restore health; and (4) continues to meet those needs which support the dignity of the individual when health cannot be maintained.

Consistent with the University mission, the nursing program prepares graduates who are expected to demonstrate beginning competencies to: (1) provide direct and indirect nursing services to individuals, families, and groups through the use of the nursing process, which includes functioning in the roles of advocate, collaborator, coordinator/supervisor, and teacher/counselor. (2) function in episodic and distributive settings; (3) assume the responsibilities incumbent upon a professional person; and (4) undertake advanced education in areas of nursing.

The School of Nursing is associated with selected and approved health care agencies as sites for clinical practice. These are: Sibley Memorial Hospital, Children's Hospital National Medical Center, Columbia Hospital for Women, Psychiatric Institute for the District of Columbia, Northern Virginia Mental Health Institute, George Washington University Hospital, and the Montgomery County Health Department.

Undergraduate Program in Nursing

ADMISSION TO THE PROGRAM Students are admitted to the program when they are admitted to the School of Nursing.

Set Requirements 46.200, 46.201, 46.210, 46.241, 46.300, 46.310, 46.320, 46.340, 46.400, 46.410, 46.420, and 46.450.

Related Requirements (1) 15.120, 15.121, 15.130, 15.131, 09.101, 09.330, 09.331, 09.340, 09.341 and 57.250. (2) Related Course Requirement Options: two social science elective, two arts and humanities elective, and two electives from either the social sciences *or* arts and humanities.

Recommendations Starting in the sophomore year all students must be certified annually in cardio-pulmonary resuscitation. During the senior year each student enrolled in 46.400 must have access to an automobile.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science with a major in Nursing.

Courses of Instruction

Undergraduate Courses

46.200 NURSING I (7) An introduction to the study and practice of professional nursing. Through the application of the nursing process, man's basic needs, especially as they relate to his dynamic interrelationship with the environment, are studied. Health needs of families and a community are introduced. Usually offered every fall. *Prerequisites:* 15.120, 15.121, 09.101, 15.130, 15.131, 09.340, 09.341, sophomore standing in nursing.

46.201 NURSING II (7) Exploration of selected health problems of adults undergoing medical or surgical therapy. Man's adaptive capacity, his homeokinetic mechanisms, and relevant pathophysiology are discussed. Utilization of the nursing process in administering care to adults is emphasized. Usually offered every spring. *Prerequisites:* 46.200, 09.330.

46.210 DYNAMICS OF HUMAN RELATIONSHIPS (2) Psychoanalytic concepts relevant to human development, nurse-patient relationships, and nursing care practices are explored. An overview of the scope, study, and practice of group work is presented. Group dynamic and group process framework is utilized in analyzing small group experiences. Usually offered every spring. *Prerequisites:* 46.200, concurrent with 46.201 (whenever possible).

46.240 NUTRITION NEEDS AND MODERN FOOD (2) Normal nutrition studied in relation to needs of the individual and demands of world population. Current social, ecological, and economic problems discussed in light of world food needs. Questions about pesticides, food additives, food analogs, "natural" and "organic" foods all given consideration. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every spring. *Prerequisite:* open to all University students.

46.241 NORMAL NUTRITION (2) Individualized programmed course designed to correlate laboratory experiences of 46.200 with study of normal nutritional needs of humans. Student proceeds at own pace, designs own service projects, and contracts for a grade. Usually offered every fall. *Prerequisite:* nursing majors only.

46.300 NURSING III (11) Continuation of 46.201. Care of patients whose adaptive capacities are threatened by acute or chronic medical or surgical problems. Relevant pathophysiology, the use of the nursing process, and the nurse's role in relation to the total plan of care are discussed. Usually offered every fall. *Prerequisites:* 46.201, 46.210.

46.310 NURSING OF CHILDREN (7) Study of current pediatric nursing care based on principles of growth and development of individual from infancy through adolescence in health and illness. Special emphasis on helping individual and family cope with effects of illness. Usually offered every fall and every spring. *Prerequisites:* 46.210 and 46.300.

46.320 NURSING THE CHILDBEARING FAMILY (7) Family centered nursing care during the maternity cycle. Student has the opportunity to help meet needs of the family in the pre-, intra-, and postnatal periods. Special emphasis on teaching and anticipatory guidance. Usually offered every fall and every spring. *Prerequisite:* junior standing in the school of nursing.

46.340 PSYCHIATRIC MENTAL HEALTH NURSING (7) Interpersonal process whereby professional nurse practitioner assists an individual and/or groups, family or community to promote mental health, prevent mental illness, and help those afflicted cope with the stress of mental illness and assist them toward health. Emphasis given the therapeutic nurse-patient relationship, psychiatric nursing theory, and principles. Usually offered every fall and every spring. *Prerequisites:* 46.210, 46.300.

46.390 INDEPENDENT READING COURSE IN NURSING (1-6)*

46.400 COMMUNITY HEALTH NURSING (7) Knowledge and skills essential for performance of professional nursing roles in community health. Introductory level content in methodology of community health; organization and delivery of community health services; social and political processes influencing health of communities. Laboratory experiences emphasize using the nursing process in community health nursing. Usually offered every term. *Prerequisites:* senior standing; 46.320, and 46.340 or concurrent with 46.340.

* See description under General Curriculum Information in this publication.

46.410 PROBLEM ANALYSIS IN PATIENT CARE (3) Approaches to solving problems presented by acutely or chronically ill patients requiring emergency or intensive care nursing to maintain or restore ability to adapt to stress. Physiological and psychological factors examined are those causing sensory deprivation/overload, cardiac, respiratory, renal, and neurological imbalance. Usually offered every spring and every summer. *Prerequisites:* 46.200, 46.201, 46.300, senior standing.

46.420 ORGANIZATION OF PATIENT CARE SERVICES (3) Principles of leadership and management and their application to the organization of patient care. Attention to the dynamics of working relationships with professional and auxiliary personnel. Lab experiences to begin the transition to the working professional role. Usually offered every spring. *Prerequisite:* senior standing in the School of Nursing.

46.450 INTRODUCTION TO RESEARCH IN NURSING (2) An overview of basic terminology, techniques, and essential components of research with application to the profession of nursing. Students are predisposed to increase skills in the evaluation of nursing research and to participate in selected studies. Usually offered every fall. *Prerequisite:* junior standing or permission of instructor.

46.490 INDEPENDENT STUDY PROJECT IN NURSING (1-6)*

Graduate and Advanced Undergraduate Courses

46.590 INDEPENDENT READING COURSE IN NURSING (1-6)*

* See description under General Curriculum Information in this publication.



College of Public Affairs

ACTING DEAN A. Lee Fritschler

Associate for Administration Lyle E. Brenneman
Associate for Program Planning Richard L. Apperson
Director, Office of Sponsored Research and Continuing Education Dwight Ink
Director, Center for the Administration of Justice Richard A. Myren
Director, Center for Technology and Administration John M. Richardson, Jr.
Acting Dean, School of Government and Public Administration Glynn L. Wood
Dean, School of International Service Gregory B. Wolfe

The College of Public Affairs is committed to the development and maintenance of distinguished educational and research programs in the field of public affairs. Through its four components—the School of Government and Public Administration, the School of International Service, the Center for Technology and Administration, and the Center for the Administration of Justice—the college provides the organizational unity for a comprehensive and conceptually unified approach to the study of public affairs at every level—international, national and local. Each program within the college is designed to serve particular career interests, but all are multidisciplinary, issue and policy-oriented, and uniquely adapted to the educational opportunities inherent in the metropolitan Washington location.

Washington is an excellent laboratory for studying public affairs. The setting provides daily vivid evidence of the interrelationships of domestic and foreign politics and the political, economic, and environmental forces shaping public affairs and public policy both at home and abroad. Students have the opportunity to interact with practitioners in the art of policy making. Internships in private and public organizations lend a practical dimension to the academic programs. Washington's facilities for scholarly research and personal enrichment include such governmental institutions as the Library of Congress, the National Archives, and the Smithsonian Institution, not to mention many specialized departmental and agency libraries.

The College of Public Affairs, drawing on the facilities of the University, the Consortium of Universities of the Washington Metropolitan Area, and the Washington, D.C., community, offers a unique combination of resources for study and practical experience in the field of public affairs. The college offers a comprehensive range of academic and professional programs leading to degrees at the associate, bachelor's, master's, and doctoral levels.

Through its Office of Sponsored Research and Continuing Education, the college offers a wide variety of credit and noncredit institutes in the areas of criminal justice, international studies, government, and technology. Most institutes are three to five days in length and offered on the University campus. Heavy emphasis is placed on offering innovative institutes and programs that require special facilities and outside speakers.

THE FACULTY The college has more than 70 full-time faculty members, including nationally recognized scholars and others distinguished by their records of public service. Augmenting the full-time faculty, is an adjunct faculty of eminent governmental officials and other public affairs practitioners who bring to the classroom the special insights acquired from their professional experience.

For full-time faculty, see faculty listings with each school and center that follows.

INTERNSHIPS AND COOPERATIVE EDUCATION OPPORTUNITIES IN WASHINGTON The college provides many opportunities for qualified students to work for course credit as interns in various government, political, and private organizations. These opportunities are designed to give students practical involvement in political processes or action programs. For example, a student might work for a congressman, senator, the Department of State or for other organizations directly concerned with domestic or international policy. Students may also participate in cooperative education programs that combine course credit and practical experience. See the Cooperative Education Program section in this publication.

INDEPENDENT STUDY PROJECTS The College of Public Affairs encourages students to engage in independent study projects related to their particular field of interest. These usually take the form of reading, research and often field work in the Washington area, and are arranged directly with a faculty member. Course credit is given.

CAREER AND PROFESSIONAL OPPORTUNITIES A public affairs education prepares students for a variety of public service careers. Graduates serve public or private agencies where they assist in creating or implementing policy alternatives. Some teach public administration, public management, political science, or governmental courses at universities, colleges, or secondary schools. Others seek those broader opportunities in professions not formally related to their degree program. Alumni are currently serving as city managers, urban planners, lawyers, labor negotiators, police and correction officers, college professors, systems analysts, interpreters, newspaper editors, foreign service officers, and elected government officials.

HONORARY SOCIETIES The College of Public Affairs encourages and recognizes both academic and professional achievement by students and alumni through membership in the local chapters of national honorary societies. Pi Sigma Alpha, the National Political Science Honor Society, founded in 1920 is open to selected juniors, seniors, and graduate students majoring in political science or international relations. Pi Alpha Alpha is the recently established National Honorary Society for Public Affairs and Administration. The College of Public Affairs has one of the eighteen charter chapters. Juniors, seniors, and graduate students enrolled in all divisions of the college are eligible for consideration with a B+ average.

UNDERGRADUATE STUDY Undergraduate students may plan their academic programs to meet personalized learning objectives within University and college requirements. While pursuing a degree program in one of the four units of the College of Public Affairs, a student is encouraged and strongly advised to examine the course offerings of the other units. A multidisciplinary education is increasingly required to meet the ever changing nature of the public affairs profession.

SPECIAL SEMESTER PROGRAMS The College of Public Affairs offers a series of special programs, each of which constitutes a full semester's course work. These programs include the Washington Semester, Washington Urban Semester, Foreign Policy Semester, and International Development Semester. The Washington Semester is operated through a cooperative agreement with 140 member colleges and universities across the country and, under its auspices, students from those member institutions may attend the other three special semester programs as well. It and the Washington Urban Semester utilize the Washington location for intensive field study and research into aspects of government policy and process. A particularly innovative educational approach is employed in the Foreign Policy Semester and the International Development Semester which permits a group of students, guided by a team of professors, to concentrate exclusively on a specific topic or theme during a one semester module. See more detailed special semesters information in the School of Government and Public Administration and the School of International Service sections in this publication.

STUDY ABROAD The College of Public Affairs provides opportunities for study abroad ranging from the traditional Junior Year Abroad to special programs such as the Year Abroad in Israel. In addition, the summer sessions include courses, workshops and tours abroad which are relevant to the curricula of the college.

GRADUATE STUDY The graduate degree programs in the College of Public Affairs serve a number of diverse educational needs. The largest number of master's programs educate for specific professional careers in government and other not-for-profit organizations at local, national, and international levels. These programs emphasize managerial, analytical, and conceptual skills necessary for professional success in the public service. Other master's programs provide the student with a general understanding of the academic disciplines related to public affairs. Doctoral programs

are designed to prepare uniquely qualified individuals for professional appointments in teaching, scholarly research, and executive management; and are offered in the three fields of political science, public administration, and international studies.

Administration of Justice

DIRECTOR Richard A. Myren

FULL-TIME FACULTY

Professor R. A. Myren, J. H. Reiman, A. S. Trebach

Associate Professor G. Bennett-Sandler, J. Goldsmith, D. J. Saari, R. I. Weiner, E. C. Viano

Assistant Professor M. Aultman, J. C. Meyer, R. Johnson

The Center for the Administration of Justice offers educational programs leading to a certificate (30 semester hours), an associate (60 semester hours), a Bachelor of Arts (120 semester hours), or a Master of Science (30 semester hours) degree in the Administration of Justice. These programs explicitly recognize that a comprehensive knowledge of the administration of justice is multidisciplinary in nature. The center's curriculum provides a base of knowledge of all institutions operating in the criminal justice system (law enforcement, courts, and corrections). It draws from many perspectives—literature, social sciences, law, humanities, and public administration, among others, to foster greater understanding of justice systems: why and how they relate to one another, and what impact they have on society. Students enrolled in the center's programs may pursue studies on a full-time or part-time basis, on campus and off campus, in either a degree or nondegree capacity.

Undergraduate Program in the Administration of Justice: Certificate

ADMISSION TO THE PROGRAM The certificate is designed primarily for part-time nondegree students who do not have current plans to pursue a degree and who are employed by governmental agencies involved in the administration of justice, civil and criminal. The curriculum introduces the student to basic concepts underlying the system for the administration of justice in contemporary American society.

Set Requirements 23.100, 23.101, 73.101, 73.102, 73.201, 73.220, 73.150, and three social science courses that do not have a 73. course number code.

DEGREE OBJECTIVE This program does not lead to a degree. Students receive a Certificate in the Administration of Justice.

Undergraduate Program in the Administration of Justice: Associate Degree

ADMISSION TO THE PROGRAM Open to all undergraduate degree students.

Set Requirements 73.101, 73.102, 73.150, 73.201, 73.220, and 73.254.

Required Options Six additional semester hours from any undergraduate courses with a 73. course number code, and six semester hours from among courses (other than those with a 73. code) designated as applicable to the social sciences distribution requirement.

This degree requires a total of 60 semester hours, including satisfaction of University-wide Composition and Reading and distribution requirements.

DEGREE OBJECTIVE Students receive a degree of Associate in the Administration of Justice with a major in the Administration of Justice.

Undergraduate Program in the Administration of Justice: Bachelor of Arts

ADMISSION TO THE PROGRAM Open to all undergraduate degree students.

Set Requirements 73.101, 73.102, 73.150, 73.201, 73.220, and 73.254.

Required
Options

Two from the following law enforcement area: 73.210, 73.211, 73.221, 73.310, 73.311, 73.313, 73.315, 73.320, 73.321, 73.411, 73.510, 73.511, 73.515, 73.516, and 73.517. Two from the following corrections area: 73.230, 73.330, 73.331, 73.430, 73.431, 73.532, 73.535, 73.536, and 73.537. One from the following judicial administration area: 73.340, 73.341, 73.440, and 73.540. One from the following law and society area: 73.251, 73.253, 73.265, 73.312, 73.351, 73.352, 73.402, 73.450, 73.453, 73.454, 73.455, 73.456, 73.458, 73.463, or 73.465. Four additional courses from any listed above. Six semester hours from among courses (other than those with a 73. course number code) designated as applicable to the social science distribution requirement.

Recommendations

A strong liberal arts background is recommended.

Special
Opportunities

Internships.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in the Administration of Justice.

Master's Program in the Administration of Justice

TRACKS Justice, Morality and Society; Justice System Planning and Organization; Courts; Corrections; and Law Enforcement.

ADMISSION TO THE PROGRAM A background of relevant undergraduate preparation in the social, behavioral, and administrative or managerial sciences is preferred, but not absolutely required. All applicants are evaluated on the basis of scholastic achievement in their last 60 semester hours of undergraduate work, pertinent work experience, and letters of recommendation from professors or employers. The Graduate Record Examination verbal and quantitative aptitude tests, a bachelor's degree from an accredited institution, and two letters of academic recommendation are required.

Course

73.604, 73.605, 73.601, 73.680, and 73.681.

Requirements

Required
Options

(1) *Justice, Morality and Society Track*: three (and no more than four) of the following: 73.501, 73.502, 73.503, 73.506, 73.552, 73.554, 73.557, 73.580, 73.652, and 73.775. (2) *Justice System Planning and Organization Track*: three (and not more than four) of the following: 73.505, 73.508, 73.550, 73.551, 73.555, 73.580, 73.602, 73.616, 73.646, and 73.775. (3) *Courts Track*: three (and no more than four) of the following: 73.540, 73.545, 73.546, 73.547, and 73.775. (4) *Corrections Track*: three (and no more than four) of the following: 73.530, 73.532, 73.535, 73.536, 73.537, 73.580, 73.608, 73.630, 73.632, 73.635, 73.636, 73.637, 73.638, 73.639, and 73.775. (5) *Law Enforcement Track*: three (and no more than four) of the following: 73.510, 73.511, 73.515, 73.516, 73.517, 73.580, 73.603, 73.615, 73.621, 73.622, 73.660, and 73.775.

Special
Opportunities

Internship.

Examinations

Students are tested for their knowledge of the criminal justice system as a whole, for their understanding of the moral implications of criminal justice policy and practice and for their in-depth mastery of their field of concentration.

Completion of courses 73.604 and 73.605 with the required grade of B (3.00) or better in each course is equivalent to successful passage of a general comprehensive examination in justice studies. Examination concerning knowledge of moral implications of criminal justice policy and practice occurs during successful completion of 73.601 with any passing grade.

Comprehensive examination in the field of concentration may take either of the following two forms: (1) Completion of a three-hour written comprehensive examination prepared and graded by faculty members

teaching in the student's field of concentration; or (2) Completion of a one-hour oral comprehensive examination in a specialty area in connection with defense of a master's essay. The essay must be supervised by two faculty members, at least one of whom teaches in the student's field of concentration. Both the essay proposal and the completed essay must be approved in writing by the two supervising faculty members. The student must successfully defend his or her essay in a one-hour oral examination given by a committee of two faculty members in the student's field of concentration, at least one of whom was not one of the essay supervisors. The two supervisors and the two examiners must unanimously confirm to the Teaching Council, the satisfactory passing of the essay, oral comprehensive examination, and the defense thereof before acceptance and certification of completion of the requirement can occur.

Thesis

Two research courses are required in lieu of a thesis: 73.680 and 73.681 (independent study cannot be used to satisfy this requirement). Students who have previous training in statistical methods may elect to take a two semester (six semester hours) research methods-statistics sequence from among those designated by the Center for the Administration of Justice instead of 73.680 and 73.681. These courses may be offered by the Center for Technology and Administration, the Department of Sociology, the Department of Mathematics, Statistics, and Computer Science, or by other American University departments or schools.

DEGREE OBJECTIVE Students receive a degree of Master of Science with a major in the Administration of Justice.

Courses of Instruction

Undergraduate Courses

73.101, 73.102 INTRODUCTION TO THE ADMINISTRATION OF JUSTICE I, II (3), (3) Two-semester survey of system for administration of justice in America. First semester gives overview of criminal justice system; police, prosecution, courts, and corrections. Second semester highlights major concerns in contemporary administration of justice: functions of criminal law, assessment of crime, juvenile delinquency and youth crime, organized crime, narcotics and drug abuse, role of judiciary, civil litigation, institutional, and community corrections. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 73.101.

73.150 SOCIAL PROCESSES AND DEVIANT BEHAVIOR (3) Systematic consideration of conformity and deviance within social structures. Nature of interactions between persons and groups which produce deviance. Effects of labeling, an analysis of social problem of community and individual, understanding processes of social control, social task, and service system. May be taken for the social sciences distribution requirement. Usually offered every term.

73.201 THE ADMINISTRATION OF JUSTICE AND THE COMMUNITY (3) Role of administration of justice in life of community, including impact of community on system for administration of justice and system's response. Community perception of police, courts, and corrections; concepts of community relations and public relations. Community control. Effects of prejudice and discrimination and problems of justice in inner city. May be taken for the social sciences distribution requirement. Usually offered every term.

73.210 ADMINISTRATIVE CONCEPTS IN LAW ENFORCEMENT AND PUBLIC SAFETY I (3) Basic principles of administration and management as applied to police function. Emphasis on police organization and management, staff function, and police role. Usually offered every fall.

73.211 ADMINISTRATIVE CONCEPTS IN LAW ENFORCEMENT AND PUBLIC SAFETY II (3) Police operations including patrol, investigation, traffic, juvenile, and special operations. Usually offered every spring. *Prerequisite:* 73.210.

73.220 CRIMINAL JUSTICE AND THE CONSTITUTION (3) Constitutional limitations of criminal justice system; its processes; implications of federal constitutional protection with respect to police investi-

gation, pretrial, and postconviction processes, and definition of offenses. May be taken for the social sciences distribution requirement. Usually offered every term.

73.221 SUBSTANTIVE ASPECTS OF CRIMINAL LAW (3) Substantive criminal law emphasizing statutory criminal law against background of common law. Specific offenses against the person, habitation, property, public peace, morality, and administration of governmental functions. General principles of criminal law including extent to which law attributes criminality to acts or omissions; criminal intent and *mens rea*: attempts, conspiracy, infancy, insanity, and drunkenness. Special defenses, public authority, prevention of crime, self-defense and defense of others, entrapment, mistake, and ignorance. May be taken for the social sciences distribution requirement. Usually offered every term.

73.230 CONTEMPORARY CORRECTIONS IN THE UNITED STATES (3) Survey of current correctional thought and practices in the American evolution of modern correctional practices in U.S. Overview of correctional treatment in different types of institutions and community. May be taken for the social sciences distribution requirement. Usually offered every term.

73.251 ALCOHOLISM AND SOCIETY (3) Analysis of alcoholic in terms of social processes which produce him. Society's cultural values, social pressures, response to alcoholic by spouse, family, legal systems, and effects of such reactions examined. Cross-cultural data used. May be taken for the social sciences distribution requirement. Usually offered every term.

73.253 JUVENILE DELINQUENCY AND YOUTH CRIME (3) Development of individual through childhood and adolescence as it relates to delinquency and crime; special characteristics of juvenile and youthful criminality; current principles, policies, and practices for its prevention and control. Factors producing delinquency. Juvenile detention, and juvenile court, training schools, and treatment of the offender. May be taken for the social sciences distribution requirement. Usually offered every term.

73.254 HISTORY AND PHILOSOPHY OF CRIMINOLOGY (3) Basic course presenting history of criminological thought, including traditional and contemporary schools of thought. May be taken for the social sciences distribution requirement. Usually offered every term.

73.265 INTRODUCTION TO THE LOGIC OF LAW AND SOCIAL SCIENCES (3) Use and appreciation of forms of logical reasoning and scientific method as applied in law and in social science to problems of the administration of justice. Specific problems in area of justice illustrating basic principles of logic and applied logic. Includes essentials of basic logic such as induction, deduction, truth, fallacies, argument, and validity, but extends to application of logic to decision making and to scientific method. May be taken for the social sciences distribution requirement.

73.310 TRAFFIC PLANNING AND CONTROL (3) Urban transportation problems, with emphasis on problems of safe and efficient movement of vehicular traffic. Application of systems concepts to traffic planning. Social, economic, and political implications of traffic planning. Traffic laws and their administration.

73.311 INTRODUCTION TO FORENSIC SCIENCE (3) Scientific analysis and identification of evidence, identification of documents, special police techniques, interpretation of medical reports, and preparation of reports. Usually offered every term.

73.312 DRUGS AND SOCIETY (3) Examination of processes by which people in various societies come to use "mind-altering substances," including caffeine, alcohol, tobacco, amphetamines, barbiturates, hallucinogens, and narcotics. Societal response to drugs and drug use. Assumptions and problems attendant upon identifying drug use as a medical or criminal problem. Social and political meanings of drug abuse and addiction. Rehabilitation, education, and other methods of controlling drug use. May be taken for the social sciences distribution requirement. Usually offered every term.

73.313 ORGANIZED CRIME (3) Organized crime in U.S.: its impact on society; the need for integrated response by people, government, and business. Organized crime as social subculture. Analysis of socioeconomic and political aspects of organized crime, emphasis on internal controls and external relations with various political and economic sectors of society. May be taken for the social sciences distribution requirement. Usually offered every term.

73.315 WHITE COLLAR AND COMMERCIAL CRIME (3) White collar and commercial crime in America: economic and fiscal implications, enforcement problems, fraudulent association, bankruptcy fraud, monopoly and coercive competitive practices and illegal use of securities and credit cards. Focus on problems of theoretical criminology presented by white collar crime. May be taken for the social sciences distribution requirement. Usually offered every term. *Prerequisite:* 73.221.

73.320 CRIMINAL PROCEDURE (3) Procedural aspects of criminal law; processes of enforcement, investigation, pretrial procedure, trial procedure and sentencing, posttrial motions, appeals, reviews, and remedies. Focus on police practices emphasizing arrest, search and seizure, bail, preventive detention, interrogation, right to counsel, incompetency, and the insanity defense. Usually offered every term. *Prerequisite:* 73.220.

73.321 EVIDENCE (3) Analysis of the rules of evidence applicable in criminal cases, including: presumptions and inference; direct and circumstantial evidence; real evidence; testimonial knowledge and opinions evidence; character evidence; the hearsay rule and its exceptions; documentary evidence; confessions, admissions and privilege against self-incrimination; illegally obtained evidence; witnesses and former testimony. Usually offered every term. *Prerequisites:* 73.220 and 73.320.

73.330 INSTITUTIONAL CORRECTIONS (3) Systematic analysis of correctional processes in juvenile and adult institutions. Usually offered every term.

73.331 CORRECTIONS IN THE COMMUNITY (3) Probation and parole supervision concepts, pre-release planning, caseload classification techniques, use of probation case-aides, community treatment centers, and neighborhood treatment centers. Auxiliary services such as employment, mental health, and vocational counseling. May be taken for the social sciences distribution requirement. Usually offered every term.

73.340 JUDICIAL ADMINISTRATION: CRIMINAL (3) Management of criminal process to assure all constitutional rights. Administrative relationships of courts with agencies and individuals involved in criminal justice process: defendants; police and criminal investigation agencies; prosecutors and defense counsel; bail agencies; probation officers; correctional agencies. Grand jury procedures. Petit jury procedures. Protection of integrity of judicial process. Usually offered every term.

73.341 JUDICIAL ADMINISTRATION: CIVIL (3) Problems peculiar to civil litigation: personal injury; probate, small claims, and landlord and tenant. Protracted litigation. Devices for narrowing issues and expediting litigation. Alternatives to judicial process for dispute resolution. Judicial management problems: record keeping, calendar management, and jury service. Administrative relationships of court to other agencies and to public. Usually offered every term.

73.351 INDIVIDUALS, INSTITUTIONS AND JUSTICE IN AMERICA (3) Examination of suitability of U.S. system of justice for dealing with institutions by comparing the present status of institutions and individuals in the system of justice. Criteria for assessing abuses and improvements suggested by the public interest, and legal, political, and research action groups. May be taken for the social sciences distribution requirement.

73.352 PSYCHIATRY AND THE LAW (3) Survey of basic psychiatric principles including contemporary views of causes, manifestations, courses, and treatments of psychiatric and behavioral disorders; trends in use of psychiatric resources in dealing with deviant behavior within and without criminal justice system. Areas examined include incompetence as bar to trial, insanity as defense, civil commitment, drug addiction, alcoholism, psychiatry in processing and treatment of juvenile offenders, and rehabilitative efforts of corrections system. May be taken for the social sciences distribution requirement. Usually offered every term.

73.390 INDEPENDENT READING COURSE IN THE ADMINISTRATION OF JUSTICE (1-6)*

73.402 ADMINISTRATIVE JUSTICE (3) Enforcement of private and public rights and duties by agencies in nonjudicial sector of government and by private agencies: social security agencies, welfare agencies, mediation and arbitration groups, housing agencies, rate-fixing authorities, and utility commissions. Equality of treatment and due process problems in such agencies. Study of nonjudicial techniques and alternatives in dispute-resolution. May be taken for the social sciences distribution requirement.

73.411 PROBLEMS IN FORENSIC SCIENCE (3) Detailed examination of specific problem areas involving case studies of investigative techniques, practices, and procedures with emphasis on scientific application thereto. Usually offered every term. *Prerequisite:* 73.311.

73.430 ADMINISTRATION OF CORRECTIONAL INSTITUTIONS (3) Analysis of basic organization and objectives of correctional agency. Specific principles covering areas of staff development; relationships of treatment, custodial, and support staffs; institutional design; and management. Usually offered every term.

* See description under General Curriculum Information in this publication.

73.431 THE PRISON COMMUNITY (3) Social organization in correctional institutions. Inquiry into nature, organization, and aims of the penal system and its effect on groups with which it deals. Interaction between groups within institutions. May be taken for the social sciences distribution requirement. Usually offered every term.

73.440 DATA PROCESSING IN JUDICIAL ADMINISTRATION (3) Introduction to concepts of data organization and processing; their application to judicial administration; and survey of capabilities and limitations of computer technology in judicial administration and court management including large volume transactions, jury management, docketing, calendar management, assignment, and legal research.

73.450 PREVENTION OF CRIME AND DELINQUENCY (3) Concept of prevention, programs of prediction, sources of data on high delinquency and criminality areas, and community action projects as preventive services. May be taken for the social sciences distribution requirement. Usually offered every term.

73.453 CIVIL DISORDER (3) Close study of *Report of the National Advisory Commission on Civil Disorders*. Historical review of civil disorders in U.S.; issues involved, actions taken in response to disorder, and ultimate resolutions of issues. Special implications of contemporary disorders for administration of justice in U.S. May be taken for the social sciences distribution requirement. Usually offered every term.

73.454 VIOLENCE IN AMERICA (3) Analysis of violence in America with emphasis on various ideologies and events that bring about or slacken violence, such as social movements, depressions, war, and political repression. May be taken for the social sciences distribution requirement.

73.455 ETIOLOGY OF CRIME (3) Analysis of contemporary theories of economic, political, social, and psychological factors contributing to deviance, including poverty, cultural deprivation and conflict, alcoholism and drug addiction, sexual deviation, social and political injustice, gambling, and political corruption. May be taken for the social sciences distribution requirement.

73.456 CRIMES WITHOUT VICTIMS (3) Selected topics pertaining to crimes without victims. Examples: gambling, sexual deviation, and prostitution. May be taken for the social sciences distribution requirement.

73.458 THE JUVENILE AND THE LAW (3) Special legal status of the juvenile. Protective services, incompetence to enter contracts. Compulsory education. Child labor laws. *In loco parentis* actions by state and private institutions. Juvenile and family court movement, with emphasis on noncriminal aspects of administration of juvenile justice: guardianship, dependency, neglect, child support, paternity, and adoption. May be taken for the social sciences distribution requirement. Usually offered every term.

73.463 THE FREE PRESS AND THE ADMINISTRATION OF JUSTICE (3) Examination of constitutional guarantee of freedom of press as it pertains to special problems in administration of justice. Free press and law enforcement, fair trial, and correctional processes. Problems of administrative secrecy, national security, and right to privacy. May be taken for the social sciences distribution requirement. Usually offered every spring.

73.465 THE AMERICAN CHARACTER AND SOCIAL JUSTICE (3) Inquiry into influence of America's values upon its system of justice with view to assessing its capacity to meet contemporary demands for social justice under present system. Analysis of contemporary conflict between law and social order. May be taken for the social sciences distribution requirement.

73.490 INDEPENDENT STUDY PROJECT IN THE ADMINISTRATION OF JUSTICE (1-6)*

73.491 INTERNSHIP (1-6) Provides students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and University instructors. Usually offered every term.

Graduate and Advanced Undergraduate Courses

73.501 THE CONCEPT OF JUSTICE (3) Major philosophical contributions to definition of justice. Attempts are made to analyze relationship of ideal of justice to concrete situations in which issue of justice (civil, criminal, or political) arises.

73.502 THE CONCEPT OF LAW (3) Analysis of major philosophical approaches to problem of meaning, function, and necessity of law in society. Concept of law in society. Concept of law is examined in its relationship to values, custom, power, and social change, as well as to social theory.

73.503 CONCEPTS OF SOCIAL CONTROL (3) Empirical and philosophical evaluation of theories of control of deviance in society. Justification of society's right to punish its members, problem of punishment vs. reform, as well as theories of rehabilitation, are among issues examined. Usually offered every fall.

73.505 CONCEPTS IN CRIMINAL JUSTICE MANAGEMENT (3) Concentrated survey of the field of administration of justice and science of management as applied to it.

73.506 JUSTICE, LAW, AND RADICALISM (3) Quality of social justice in America and meaning of radical critique of contemporary society, such as that of Black Panthers, SDS, New Left, and Old Left.

73.508 SEMINAR IN MANAGEMENT OF CRIMINAL JUSTICE AGENCIES (3) Selected topics in management of criminal justice agencies. Examples: executive development, training programs in criminal justice administration, professionalization, role of the supervisor and middle manager, utilization of offender as agency manpower, probation and parole, and police-labor management problems.

73.510 THE POLICE AND THE POLITICAL SYSTEM (3) Analysis of police function as instrument of public policy in the U.S. Relationship of police to public and private agencies. Constitutional and pragmatic limitations on law enforcement problems of federalism; policy discretion and selective enforcement, minimum standards, community control and political feasibility. Relationship of police function to social and economic policy. Due process as requirement for ordered liberty. Usually offered every term.

73.511 INNOVATION IN LAW ENFORCEMENT; PRACTICE AND THEORY (3) Systematic review of theories underlying attempts at innovation in law enforcement in highly urbanized and metropolitan communities, with special attention to technologically based programs, deployment of specialists, training programs, and utilization of advances in the social and applied sciences. Usually offered every spring.

73.517 SEMINAR IN LAW ENFORCEMENT MANAGEMENT (3) New technologies and special problems in law enforcement management and policy making.

73.530 SURVEY IN CORRECTIONS (3) Course examines some of the critical normative (normal and value) and policy questions in the corrections field. Emphasis is placed on the underlying goals, philosophies, and ideologies influencing correctional policy and correctional practice. Usually offered every fall.

73.532 INNOVATION IN CORRECTIONS: PRACTICE AND THEORY (3) Persistent trends in contemporary corrections; pressures for change, centers of change, and case studies of innovation. Usually offered every spring.

73.535 INSTITUTIONAL TREATMENT OF OFFENDERS (3) Development of frame of reference for rational treatment of offenders through description, examination, and practice of treatment methods. Analysis of methods employed by correctional institutions to prepare inmates for reintegration into their environment upon release. Lectures, seminar discussions, readings, workshops, and discussions with actual offenders.

73.536 ADMINISTRATION OF CORRECTIONAL INSTITUTIONS (3) Analysis of essentials in institutional administration as they relate to correctional agencies. Investigation of interrelationship between organizational behavior and treatment programs. Examination of factors involved in correctional decision making and innovative management techniques through lectures, readings, and workshops.

73.537 SEMINAR IN CORRECTIONAL ADMINISTRATION (3) Consideration of major problems encountered in administration of correctional institutions.

73.540 SURVEY IN JUDICIAL ADMINISTRATION (3) Survey of judicial systems with particular stress on urban court problems. Focus with national perspective upon descriptive analysis of judicial systems and their legal, social, and political environments. Analysis and discussion of social, legal, and political issues related to judicial systems, review of basic trends in this sector of government. Judicial officers invited to participate in discussions. Usually offered every term.

73.545 JUDICIAL ADMINISTRATION AND COURT MANAGEMENT (3) Examination of state-of-the-art of court management and of selected relevant topics in judicial administration. Exploration of major trends in judicial court environment. Study of general, civil, criminal, financial, and intergovernmental elements of courts. Consideration of organizational theory, role theory, and social science-related findings relevant to executive decision making in court systems. Review and discussion of advanced governmental personnel systems.

73.546 MODERN TECHNOLOGY AND MANAGEMENT IN JUDICIAL ADMINISTRATION (3) Study of modern technology including cybernetics and systems theory from managerial perspective. Review and analysis of recent advances in document management, including theory, costs, and managerial implications. Study of judicial environment and radical political action. Tavistock application groups and research proposal development.

73.547 SEMINAR IN COURT MANAGEMENT (3) New technologies and special problems in court management.

73.550 PROBLEMS IN THE EXERCISE OF INSTITUTIONAL AUTHORITY (3) Designed to develop participant's insight into problems of authority relationships at work in institutions. Emphasis on interrelations of objectives, structures, inter- and intragroup dynamics and their effects upon personal and organizational growth and development. Focus of learning is upon problems encountered in exercise of authority, based on competence, power, or both, individual's and institution's responsibility.

73.551 ACTION METHODS AND CRISIS INTERVENTION (3) Understanding behavior of individuals over whom justice officials exercise authority—using psychodrama and action method techniques.

73.552 POLITICAL CRIME (3) Conceptual, sociological, and historical study of crimes in political realm, such as revolution, assassination, espionage, acts of civil disobedience, and protest. Attempt made to understand significance and sources of contemporary political crime, and response to it. Usually offered every fall.

73.554 THEORIES IN CRIMINOLOGY (3) Historical and analytical review of theories in criminology and their relationship to contemporary ideas.

73.555 COMPARATIVE JUSTICE STUDIES (3-6) On-site review of theories and practices of criminal and criminal justice systems of other countries, including: crime, justice, and heroin in England; correctional innovations in Scandinavia; administration of justice in England, Sweden, Denmark, and Holland.

73.557 VICTIMOLOGY (3) Intentional and unintentional behavior of victims of offenses that trigger their own victimization and other relationships to criminal acts explored. Historical review of victimology as special area of study in criminology, current status of academic studies, and U.S. and foreign legislative and nonjudicial programs concerned with victims of crimes also receive consideration.

73.580 SEMINAR IN THE ADMINISTRATION OF JUSTICE (3) Consideration of major problem encountered in administration of justice. Examples: protest in contemporary urban society; theories of prejudice and discrimination; social justice in a planned society; national crime control strategies; Marxian social theory and the concept of justice; police corruption; the American legal system; crime, drugs, and public policy.

73.590 INDEPENDENT READING COURSE IN THE ADMINISTRATION OF JUSTICE (1-6)*

Graduate Courses

73.601 SEMINAR IN THE ADMINISTRATION OF JUSTICE: MORAL ISSUES IN CRIMINAL JUSTICE (3) Discussion and analysis of moral issues and their relationship to the criminal justice system.

73.602 COMPREHENSIVE CRIMINAL JUSTICE PLANNING (3) Application of planning concepts to development of comprehensive law enforcement plans under Omnibus Crime Control and Sa

* See description under General Curriculum Information in this publication.

Streets Act of 1968. Integration of plans of police, judicial, and correctional agencies into comprehensive crime reduction plan. Identification and definition of objectives. Identification and comparison of alternative courses of action. Resource analysis. Cost-benefit analysis. Identification and quantification of outputs. Criteria for program evaluation. Use of models.

73.603 COMMUNITY CONTROL OF LAW ENFORCEMENT (3) Research seminar to develop information on various means being used in U.S. to assert and maintain community control over law enforcement agencies, particularly major urban police departments. Police review boards, civilian advisory councils, and police-community relations programs. Police reaction to civilian review. Related problems of community control of other bodies of local government, such as school boards, street and park commissions, zoning boards, and planning commissions. Public review of judicial performance.

73.604 GRADUATE SURVEY IN THE ADMINISTRATION OF JUSTICE: THEORETICAL ISSUES (3) Consideration of the nature and sources of injustice, crime and deviance generally; of the variety of social control mechanisms including legal system; of the role of ideology and the problems of legitimacy, authority and responsibility of justice system design and operations. Usually offered every term.

73.605 GRADUATE SURVEY IN THE ADMINISTRATION OF JUSTICE PROCESSES (3) Consideration of criminal justice systems as entities and of the actual organization and operation of the governmental units that create and administer the criminal law, including specific practices of those agencies. Usually offered every term.

73.608 THE INSTITUTIONALIZATION OF JUVENILE JUSTICE SERVICES (3) Exploration of social organization of juvenile justice programs from interactionist perspective. Historical review of purposes and practices of programs, as in law enforcement and juvenile courts, and ways in which they contribute to increase in crime and delinquency as opposed to their reduction. Organizational goals, theory of office, informal organizations within organization, and personal belief systems of organizational members examined as affect delivery of services and sacrifice of clients in process.

73.615 COMPARATIVE POLICE SYSTEMS (3) Critical comparative study of different police systems in U.S. with those of selected industrialized foreign countries; includes administration, organization, objectives, and principal functions. Analysis of types and levels of controls over police function and relationships of police to people. Public and police perception of police role within various police systems. Usually offered every fall.

73.616 INTERGOVERNMENTAL RELATIONS IN THE ADMINISTRATION OF JUSTICE (3) Constitutional bases for distinction between federal, state, and local law enforcement functions. Cooperation and conflict in subject-matter areas of shared enforcement responsibility. Comparative organization of state and federal enforcement agencies. Federal support activities, including enforcement, technical, and information services. Federal program assistance under Omnibus Crime Control and Safe Streets Act of 1968.

73.621 THE CONSTITUTION AND POLICE ADMINISTRATION (3) Constitutional standards and police practices. Contrast between "due process" and "crime control" models of criminal justice system. Analysis of Supreme Court decisions on arrest, search and seizure, wiretapping and eavesdropping, entrapment, interrogation and confessions, and lineups. Usually offered every fall.

73.622 THE CONSTITUTION AND CRIMINAL PROCEDURE (3) Constitutional standards and operation of criminal justice system, excluding police practices. Bail, decision to prosecute, scope of prosecution, grand jury proceedings, preliminary hearings, right to counsel, right to speedy trial, plea bargaining, discovery and disclosure, jury trial, trial by newspaper, double jeopardy, and posttrial proceedings. Usually offered every spring.

73.630 THE LAW OF CORRECTIONS (3) Process of law from conviction to release from restraint in its relation to correctional principles and practices. Included: function of courts, probation, corrections, and parole; civil rights of convicted and restoration of those lost, and procedures relating to commitment, fines, and writs. Usually offered every spring.

73.632 CORRECTIONAL DECISION MAKING (3) Decision making as problem-solving process by managers and workers in correctional setting described and analyzed, with particular attention to reciprocal relationship between decision maker and his organization. Attributes of decision maker and offender, techniques of organizational adaptation, and environmental variables which may influence decision making process are explored. Usually offered every spring.

73.635 COMPARATIVE CORRECTIONAL SYSTEMS (3) Current approaches in control and treatment of juvenile and adult offenders in U.S. and other countries. Usually offered every fall.

73.636 ADMINISTRATIVE MANAGEMENT IN CORRECTIONS (3) Identification and analysis of problems and issues confronting the manager in correctional setting. Styles of management, decision making, and problem solving are explored. Laboratory method of learning utilized; enrollment is limited. Usually offered every fall.

73.637 INTERVIEWING AND COUNSELING IN CRIMINAL JUSTICE (3) Purpose and principles of effective interviewing. Analysis of individual problems in social functioning and the process of problem solving with criminal justice clients. Emphasis placed on learning to help unmotivated involuntary clients. Usually offered every spring.

73.638 GROUP COUNSELING IN CORRECTIONS (3) Analysis of major theoretical models for understanding group behavior in correctional settings. Usually offered every fall.

73.639 PRACTICUM: SEMINAR IN GROUP RELATIONS (3) Advanced course designed to provide practical experiences for criminal justice students and to learn about their own and others' behavior in group situations.

73.646 UNDERSTANDING ORGANIZATIONAL BEHAVIOR (3) Concepts and tools derived from disciplines of cultural anthropology, social psychology, sociology, and psychoanalysis utilized to enhance student's understanding of behavior at work, both intra- or interorganizationally, e.g., in business, church, government, hospitals, industry, prisons, schools, military, and labor unions, etc.

73.652 SOCIOLOGY OF LAW (3) Consideration of how social values and preferences are embodied in law, both substantive and procedural. Law as diagnostic tool to uncover structural preconditions which are generally tacit or less readily observable. Comparative data and cross-cultural information used.

73.660 CIVIL RIGHTS ENFORCEMENT (3) Critical evaluation of the adequacy of mechanisms developed for assurance of civil rights in contemporary America. Enforcement problems pertaining to administration of justice, voting, equal employment, housing, public facilities, public accommodations, and educational opportunity.

73.665 PROBLEMS IN LEGAL AND SOCIAL SCIENTIFIC METHODOLOGY (3) Critical comparison of legal and social scientific methodologies with emphasis on their future as complementary procedures for understanding and articulating social justice. Object to suggest improved bases for legal and social science approaches to problems of justice.

73.670 ACTION RESEARCH AND JUSTICE MANAGEMENT (3) Principles and techniques of social science research as applied to the management of action programs in criminal justice field.

73.671 RESEARCH TECHNIQUES AND METHODOLOGIES (3) Practical application of social service theories to problems in the justice field. Development of sophistication in the use of research methodologies on actual cases and problems.

73.680 INTRODUCTION TO SOCIAL RESEARCH (3) Introduction to social research methods as applied to administration of justice. Emphasis on basic assumptions underlying social science research methods and role of social research in analysis, interpretation, and clarification of problems of the justice system. Also deals with design and execution of research projects, including analysis of relationship between researcher and those he studies. Introduction to scientific method in development of social theory and solution to social problems. Usually offered every term.

73.681 THE ROLE OF RESEARCH IN CRIMINAL JUSTICE ADMINISTRATION (3) Basic aims, processes and limitations of research in criminal justice agencies explored to acquaint those with managerial and supervisory responsibilities with appropriate place and function of agency-based research. Techniques for development and supervision of in-house research and control over outside researchers who come into the organization examined in terms of organizational maintenance and philosophy, ethics, and appropriate utilization and control over the dissemination of research findings. Usually offered every term.

73.690 INDEPENDENT STUDY PROJECT IN THE ADMINISTRATION OF JUSTICE (1-6)*

73.691 INTERNSHIP (1-6) Provides students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and University instructors. Usually offered every term.

* See description under General Curriculum Information in this publication.

73.775 SEMINAR IN THE ADMINISTRATION OF JUSTICE (3-6) Consideration of major problems encountered in administration of justice. Examples: problems in judicial administration; alternatives to use of the judicial process; concepts of justice; philosophy of punishment and rehabilitation; success models in criminal justice management; law and the behavioral sciences; family diagnosis and intervention for probation and parole personnel; the police state; court administration and complex organization theory; Marxian critique of criminal justice; court management. Usually offered every term.

School of

Government and Public Administration

ACTING DEAN Glynn L. Wood

FULL-TIME FACULTY

Professor R. P. Boynton, R. E. Cleary, C. B. Earle, A. L. Fritschler, C. H. Goodman, J. J. Hanus, L. H. Hattery, H. Herman, M. Meadows, E. V. Mittlebeeler, A. Perlmutter, N. S. Preston, E. S. Robinson, B. Rosen, M. Segal, R. B. Smolka, M. P. Walker.

Associate Professor M. G. Bonham, R. M. Bray (Emeritus), D. C. Brown, C. Bryant, G. P. Bush (Emeritus), E. H. DeLong (Dean Emeritus), W. Y. Elliott (Emeritus), R. A. Hitlin, D. H. Koehler, R. A. Lane, L. Langbein, H. Lieber, H. E. McCurdy, B. F. Norton, B. H. Ross, H. H. Roth (Emeritus), J. A. Thurber, L. G. White, G. L. Wood, D. G. Zauderer

Assistant Professor M. A. Greene, S. Hammond, W. L. Hoffman, D. W. Taylor, T. A. Timberg, T. N. Tschudy, R. D. Whitman

Instructor C. M. Kerwin, G. Satterthwaite

The School of Government and Public Administration makes use of the special opportunities of the Washington, D.C., location for the teaching and study of political science and public administration.

The school's undergraduate program focuses on government and public affairs as an aspect of a broad, liberal arts education. It prepares the student for an enlightened role in national and community affairs. This program leads to a career in public affairs at a junior professional level. It provides a solid and comprehensive foundation for the student who plans to pursue further education before entering a career in public affairs or politics, governmental administration, law, teaching, or research.

The graduate program is designed to prepare students for academic or professional careers in public affairs. The master's and doctoral programs in political science and public administration are flexible in order to meet the educational needs of a diversified student population.

Undergraduate Special Program: Washington Summer Seminar

ADMISSION TO THE PROGRAM This special two-week summer program introduces high school students to government in action in Washington, D.C., through seminars with practitioners in public affairs, with those seeking to influence policy, and with faculty who observe the process. A student must be nominated by his guidance counselor or social studies teacher and have a C+ or better grade-point average.

Set 52.100

Requirements

Special Opportunities Students are exposed to cultural performances in Washington as part of the program.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn two semester hours of undergraduate credit that may be applied toward the requirements for an undergraduate degree.

Undergraduate Special Program: Semester in London

ADMISSION TO THE PROGRAM The program is open on a competitive basis to juniors and seniors. The minimum grade-point average for consideration is 2.75. Academic excellence and an ability to adapt to another culture are essential. Three letters of recommendation and an interview are required.

Set 52.430

Requirements

**Special
Opportunities**

Students live with a British family for duration of the semester. Ample time is provided for independent travel, and two special day excursions outside of London are included. Students enjoy library and student union privileges at The University of London.

DEGREE OBJECTIVE This program does not lead to a degree. Students receive 15 semester hours of undergraduate credit that may be applied toward the requirements for an undergraduate degree.

Undergraduate Washington Semester Program in American National Government

ADMISSION TO THE PROGRAM This special one semester program draws on the unique environment of Washington, D.C., to introduce students to decision makers in the American national government through seminars, internships, and research. The program is open to students of The American University and students of affiliated institutions from across the country. Requirements for admission to the program are: (1) nomination by a Washington Semester faculty representative; (2) minimal 2.50 grade-point average on a 4.00 scale; (3) at least one course in American national government or its equivalent; and (4) senior, junior, or second semester sophomore status at time of participation. The selection process is competitive.

**Set
Requirements** 56.410, 56.411, and 56.412.

**Required
Options** As their fourth course, students may elect either 56.416 or a regular American University course from among *evening* offerings.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Washington Semester Program in Urban Affairs

ADMISSION TO THE PROGRAM This special one-semester program draws on the unique environment of Washington, D.C., to introduce students to the interface of city decision making and problems with federal government and regional agencies by means of seminars, internships, and research. The program is open to students of The American University and students of affiliated institutions from across the country. Requirements for admission to the program are: (1) nomination by two Washington Semester faculty representatives; (2) minimal 2.50 grade-point average on 4.00 scale; (3) at least one course in American national government or its equivalent; and (4) senior, junior, or second semester sophomore status at time of participation.

**Set
Requirements** 56.413, 56.414, and 56.415.

**Required
Options** As their fourth course, students may elect either 56.416, or a regular American University course from among *evening* offerings.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Program in Political Science

ADMISSION TO THE PROGRAM New freshmen and transfer students are admitted through the University's Office of Admissions, Financial Aid, and Veteran's Affairs. Current students who wish to transfer into the school or develop a double major, should have a 2.00 grade-point average and the approval of the Undergraduate Academic Advisor.

**Required
Options** (1) Two courses from the following: 53.100, 53.130, 53.150, and 33.201. (2) Six government and public administration courses (course number code 53.xxx and 54.xxx) at the 300-level or above, including at least one, but not more than two, topic courses at the 400- or 500-level.

**Related
Requirements** Four courses at the 300-level or above, with no more than two in any one field. Choose from the following areas: administration of justice, anthropology, economics, history, international studies, psychology, sociology, and quantitative areas (in this area courses may be taken at any level) in accounting, computer science, and statistics.

**Special
Opportunities** Freshmen honors, upper-class honors, internship, independent study, independent reading, international studies courses, and Washington

Semester courses. Detailed information on each of these opportunities is available in the School of Government and Public Administration Undergraduate Office, Ward 222. Any combination of two courses chosen from these, except the Freshmen Honors Program, may be applied toward the six-upper-level government requirements.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Political Science.

NOTE ALSO Political Science majors may count up to three international studies courses (offered by the School of International Service), in addition to 33.201, as part of their major and related course requirements. Students using two School of International Service courses under the major are limited to one School of International Service course under related course requirements.

Undergraduate Program in Urban Affairs

ADMISSION TO THE PROGRAM New freshmen and transfer students are admitted through the University's Office of Admissions, Financial Aid, and Veteran's Affairs. Current students who wish to transfer into the department, or develop a double major, should have a 2.00 grade-point average and the approval of the Undergraduate Academic Advisor.

Set	53.150.
Requirements	
Required	(a) Four of the following courses, including two from the first four and any two others: 53.352, 29.372, 19.315, 65.387, 73.201, 55.589, 21.427, 03.336, and 11.470. (b) Two courses of urban internship are required. (c) One research methodology course chosen from 10.355, 19.310, 53.312, 55.310, 53.500, 65.420, or 42.202. (d) Either the School of Government and Public Administration Urban Affairs Laboratory or an approved 400-level seminar in another discipline. (e) Seven related-field courses at the 300-level or above chosen from among the following: administration of justice, American studies, anthropology, business administration, economics, education, government, history, sociology, technology and administration. A list of acceptable courses is available in the School of Government and Public Administration Undergraduate Office.
Options	
Special Opportunities	Urban affairs majors may apply to the Urban Semester and, if accepted, register for it in lieu of two related field courses, the Urban Affairs Laboratory, seminar, and one internship course.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Urban Affairs.

Combined Undergraduate—Graduate Program in Political Science (B.A./M.A.) or Public Administration (B.A./M.P.A.)

TRACKS This program enables qualified undergraduates to earn, within a five year period, both a bachelor's degree with a major in any related discipline and a master's degree with a major in political science or public administration. This is accomplished by allowing certain specified graduate-level courses to be applied to the requirements of both degrees.

ADMISSION TO THE PROGRAM Students are admitted to the undergraduate major program of their choice according to the admission requirements of that program. Admission to the combined B.A./M.A. or B.A./M.P.A. program requires junior standing, a 3.00 cumulative grade-point average, a completed application form (forms available from the School of Government and Public Administration Undergraduate Program Office), a written faculty recommendation, an essay on the student's interest and abilities in political science or public administration, and an interview with the School of Government and Public Administration Director of Undergraduate Programs.

Course	
Requirements	School of Government and Public Administration program advisors work with students to combine the bachelor's and master's degree requirements into a single continuous plan of study. Students must satisfy the course requirements for a bachelor's degree with a major in any related discipline plus the course requirements for either the M.A. degree with major in Political Science or the M.P.A. degree. For the B.A./M.A., students must take 53.650 and may apply this course to the

requirements of both degrees. For the B.A./M.P.A., students must take 54.610 and two other courses specified by School of Government and Public Administration program advisors and may apply these to the requirements of both degrees.

Recommendations

Recommended preparatory courses for the B.A./M.A. program would include course work in economics and statistics. Recommended preparatory courses for the B.A./M.P.A. program would include course work in economics, statistics, computer science, accounting, writing and other communication skills, an undergraduate internship, and related work experience.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a designated undergraduate major and a degree of Master of Arts with a major in Political Science or a degree of Master of Public Administration with a major in Public Administration.

NOTE ALSO Acceptance and participation in the B.A./M.A. or B.A./M.P.A. program does not mean automatic acceptance into the respective graduate program. Application for admission to the graduate program through the Office of Admissions, Financial Aid, and Veteran's Affairs will be necessary in the last undergraduate semester. If a 3.00 cumulative grade-point average is maintained, a student can expect to be admitted to the master's program.

Master's Program in Political Science

TRACKS American Politics, Public Policy Analysis, Politics and Economics, Comparative Politics, Political Theory, and Public Law.

ADMISSION TO THE PROGRAM The minimum requirement for admission to the M.A. program is a B average or better in the last 60 semester hours of undergraduate work. Provisional admission may be granted on a lower academic record, or on the basis of 12 semester hours of graduate level work done in nondegree status with a better than B average. The Graduate Record Examination is required for full-time applicants who wish to be considered for financial aid.

Course Requirements 33 semester hours.

American Politics (a) Required: 53.650, 53.606, 53.610. (b) Major Field: 9 semester hours from 53.651, 53.652, 53.653, 53.654, 53.655, 53.656, and 53.670. (c) Second Field: Up to 15 semester hours selected from a variety of areas in political science or from other disciplines.

Policy Analysis (a) Required: 53.650, 53.606, and 53.610. (b) Major Field 12 semester hours—53.614, 53.682, 53.683, and 53.684. (c) Second Field: 12 semester hours taken in a substantive policy area and/or from another discipline in the University.

Comparative Politics, Political Theory, Public Law (a) Required: 53.650, 53.610, one political theory course. (b) Major Field: 12 semester hours from the comparative politics, political theory, or public law specialization area. (c) Second Field: Four courses (12 semester hours) in a logically related area in political science, or from other disciplines within the University.

Politics and Economics (a) Required: 53.650, 53.610, 53.606, and 19.603. (b) Major and Second Fields: Students who wish to include economics in their political science degree should consult the department about the courses which will best prepare them for a combined comprehensive exam.

Special Opportunities

An internship may be substituted for up to six hours of the second field courses. If the internship option is selected, students must register for 52.698.

Examinations

In each option of the M.A. in Political Science, a written comprehensive examination in the major field is required. The examinations last four hours.

One retake of the examination is permitted. Deadlines for spring, summer, and fall examinations are January 31, April 30, and September 30, respectively.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Political Science.

Master's Program in Public Administration

TRACKS Governmental Management, Urban Affairs, Public Policy Analysis, Organization Development, Health Care Management, Financial Management, International Affairs, Political Science, and Management Science.

ADMISSION TO THE PROGRAM The minimum requirement for admission to the M.P.A. program is a B average or better in the last 60 semester hours of undergraduate work. Provisional admission may be granted with the proviso that a better than B average is attained in the first 12 semester hours of graduate work. The Graduate Record Examination is required for those full-time applicants who wish to be considered for financial aid.

Course Requirements	40 semester hours. (1) Required: 54.610, 54.661, and 54.662; three of the following: 54.612, 54.617, 54.618, 54.635, and 54.650. (2) Two 54.645 modules: Computer Systems Literacy, Written Communications, Meeting Skills, Budget Preparation and Administration, Grants and Proposal Writing, Budget Presentation, and others as announced each semester. (3) Specialization (15–21 semester hours): A combination of courses from one or more of the tracks listed above or from other teaching units in the University to form other options such as business administration or arts management.
Special Opportunities	An internship may be substituted for up to six semester hours of the specialization courses. If the internship option is selected, students must register for 52.698.
Examinations	One written comprehensive examination, lasting four hours, covers the required courses listed above. Deadlines for spring, summer, and fall examinations are January 31, April 30, and September 30, respectively.

DEGREE OBJECTIVE Students receive a degree of Master of Public Administration with a major in Public Administration.

Doctoral Programs in Political Science and Public Administration

TRACKS American Government and Political Behavior, Comparative Government and Politics, Political Theory, Public Law, Public Policy Analysis, Governmental Management, Organization Development, and Urban Affairs.

ADMISSION TO THE PROGRAM Applicants will be considered and admitted only for the fall semester of each year. February 1 is the deadline for application for admission. All applicants must submit scores from the verbal and quantitative sections of the Graduate Record Examination. A doctoral student will be expected to devote at least one year to full-time course and seminar study at some point during the first three academic years after admission. The normal minimum for consideration is a 3.20 average in the last 60 semester hours of undergraduate work and a better than B average in previous graduate work. Provisional admission will be occasionally granted to applicants whose grade-point average falls below this level, but who are exceptional in some compensatory respect.

Course Requirements	The following courses are required: 53.611, 53.613, 53.614, and one course in political theory. The remaining courses should be chosen in preparation for three written comprehensive exams and to fulfill the course requirement of the noncomprehensive field.
Advancement to Candidacy	Advancement to candidacy must be completed not later than the semester in which the student has completed 18 semester hours of graduate work. Completion of the core methodology requirements with grades of B or better and an external examination covering this material are the minimum qualifications for advancement to candidacy.
Tools	Statistics is required as the first tool of research for all doctoral candidates, and is certified through completion of 53.614 with a B or better. The second tool must be chosen from a list available in the School of Government and Public Administration Graduate Office.

Examinations

Written examinations are required covering three comprehensive fields, at least two of which are to be chosen from the tracks listed above. A third, related field may be chosen from another teaching unit of the University, provided that it exists as a doctoral field in that unit. An oral comprehensive examination is also required.

Dissertation

After approval of a proposal by three faculty members the dissertation is undertaken through registration for 12 semester hours of dissertation seminar. When it has been determined that the dissertation is acceptable, the candidate must publicly defend his manuscript in an oral examination. The committee determines conclusively at this point whether the dissertation and exam are acceptable.

The dissertation must consist of high quality original research directly relevant to the student's doctoral program. A proposal may be rejected for unacceptability of subject, inadequacy of the proposed concept and approach of the research, or because there is no full-time School of Government and Public Administration faculty member who is academically competent and available to supervise the project proposal. If the student is unable to fulfill any of these requirements, his candidacy may be terminated at this time.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in Political Science or Public Administration.

Courses of Instruction

Undergraduate Courses

POLITICAL THEORY

53.100 INTRODUCTION TO POLITICAL THEORY (3) Philosophical controversies about major political problems and concepts, such as justice, freedom, authority, community, and dissent. May be taken for the social sciences distribution requirement. Usually offered every term.

53.101 INTRODUCTION TO POLITICAL SCIENCE (HONORS) (3) Two semester course which serves as an introduction to American politics, comparative politics and political theory. Seminar format. Fulfills the introductory requirements for political science majors. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every term. *Prerequisite:* by invitation.

53.300 MODERN POLITICAL THOUGHT (3) Analysis of major political thinkers from Renaissance to twentieth century, including Machiavelli, Hobbes, Locke, Rousseau, and Mann. Concepts include the nature of justice, limitation of governmental power, and the role, rights, and obligations of the citizen. Honors sections available. May be taken for the social science distribution requirement. Usually offered every term.

53.400 TOPICS IN POLITICAL THEORY (3) Special subjects in political theory. Examples include: Individualism in Technological Society; Contemporary Political Ideologies; Radical Critiques/Social Sciences. May be repeated for credit within the same term; topic must be different. May be taken for the arts and humanities distribution requirement. Usually offered every term.

POLITICAL SCIENCE RESEARCH

53.111 PUBLIC AFFAIRS LABORATORY (1-3) Empirical field research projects in political science workbook experimentation in Washington political community; laboratory experimentation or simulation exercises on current policy issues. Offered in conjunction with introductory SGPA courses.

53.311 PUBLIC AFFAIRS LABORATORY (1-3) Description same as 53.111. Offered in conjunction with upper-level SGPA courses.

53.312 SCOPE AND METHODS OF POLITICAL INQUIRY (3) An introduction to political science research, including elementary statistics and research design. Applications of some basic data gathering and analytic techniques to student formulation problems. May be taken for the social sciences distribution requirement. Usually offered every term.

53.410 TOPICS IN METHODOLOGY (3) Special topics in methodology, such as Computer Applications in Political Research. May be repeated for credit within the same term; topic must be different. Usually offered every spring.

COMPARATIVE POLITICS

53.130 INTRODUCTION TO COMPARATIVE POLITICS (3) Introduction to political change and development in selected industrial and industrializing countries. Comparative study of their decision-making processes and logic of comparative method. May be taken for the social sciences distribution requirement. Usually offered every term.

53.330 COMPARATIVE POLITICS OF INDUSTRIAL SOCIETIES (3) Political change and development of selected industrial societies: Britain, West Germany, Soviet Union, and Japan. Honors sections available. May be taken for the social sciences distribution requirement. Usually offered every fall.

53.331 THIRD WORLD POLITICS (3) Political order and change in selected countries in Africa, Asia, and Latin America, with emphasis on the themes of nation building, ideological development, interplay of elites and masses, and role of military. May be taken for the social sciences distribution requirement. Usually offered every spring.

53.430 TOPICS IN COMPARATIVE POLITICS (3) Special topics in comparative politics. Examples include: Ethnic Conflict and Political Change; European Integration; Civil/Military Relations; Comparative Politics: Countries; The Common Market; Comparative Public Policy; Role of Multinational Corporations. May be repeated for credit within the same term; topic must be different. Usually offered every term.

AMERICAN POLITICS

53.150 INTRODUCTION TO AMERICAN GOVERNMENT AND POLITICS (3) American democratic theory, constitutional and political development of national government, changing relationships of national, state, and local governments. Emphasis on major national institutions involved in policy making and socioeconomic functions which they perform. Prerequisite for many upper-level SGPA courses. May be waived for students who have passed the American Government examination of the College Level Examination Program (CLEP). May be taken for the social sciences distribution requirement. Usually offered every term.

53.350 POLITICAL BEHAVIOR (3) Elections and electoral behavior. Roles of public opinion, interest groups, social movements, and political parties in plural societies. Problems in political participation, communication, representation, and leadership. Honors sections available. May be taken for the social sciences distribution requirement. Usually offered every term.

53.351 CONGRESS AND THE PRESIDENCY (3) Role of national legislature and effective policy making process. An assessment of the balance of power between these institutions. Special attention given to the new role of Congress in national security and budgetary policies, as well as the primacy of the executive office of the president over the other cabinet departments. Honors sections available. May be taken for the social sciences distribution requirement. Usually offered every term.

53.352 METROPOLITAN POLITICS (3) Growth of cities and metropolitan areas. Evolution of city and its surrounding areas as focus of public policy. Analysis of decision-making techniques, intergovernmental relations, and ethnic politics. Implications of financial resources and suburban attitudes on metropolitan politics and policy making. Usually offered every term.

53.353 STATE GOVERNMENT AND POLITICS (3) Introduction to state government; analysis of its institutions and actors in the political process. Special emphasis placed on particular policy areas and examination of the impact of the federal government and state regionalism on the decision-making process. Usually offered every spring.

53.450 TOPICS IN AMERICAN POLITICS (3) Special topics in American politics. Examples include: Political Parties and Interest Groups; Elections, Voting Behavior, and Campaigns; Politics of Modernizing Congress; Ethical Dilemmas in Government; American Voting Behavior; Politics and the Cinema; Politics of Defense; Presidential Power. May be repeated for credit within the same term; topic must be different. Usually offered every term.

PUBLIC LAW

53.370 LAW AND THE POLITICAL SYSTEM (3) Basic concepts of law; American legal system. Analysis of role of courts, their action and processes, in policy-making process. Problems of law enforcement and correctional system. Usually offered every term.

53.371 AMERICAN CONSTITUTIONAL DEVELOPMENT (3) Nature of constitutionalism and role of constitutional interpretation: judicial power and review. Consideration of important Supreme Court decisions and their impact on development of the American political system. Usually offered every term.

53.372 CIVIL RIGHTS AND LIBERTIES (3) Analytical treatment of Supreme Court decision making in area of civil liberties, with emphasis on First and Fourteenth Amendments, including constitutional doctrines, current trends, and prospective problems. Usually offered every term.

53.470 TOPICS IN PUBLIC LAW (3) Special topics in public law. Examples include: Administrative Law and Its Uses; Public Interest Law; Legal Reasoning. May be repeated for credit within the same term; topic must be different.

PUBLIC POLICY

53.380 GOVERNMENT AND SOCIAL POLICY (3) Forces shaping government's role in social and economic policy. Analysis of substantive policy and program areas: labor, antitrust, transportation, health, welfare, civil rights, education, and urban and environmental policy. May be taken for the social sciences distribution requirement. Usually offered every term.

53.480 TOPICS IN PUBLIC POLICY (3) Special topics in public policy. Examples include: Analysis of Political Decisions; Politics, Environment, and Energy Problems. May be repeated for credit within the same term; topic must be different. Usually offered every spring.

PUBLIC ADMINISTRATION

54.300 INTRODUCTION TO PUBLIC ADMINISTRATION (3) Theories, organization, and management of the public sector. Substantial emphasis on policy making within federal executive branch. Usually offered every term.

54.410 TOPICS IN GOVERNMENTAL MANAGEMENT (3) Special topics in governmental management. Examples include: Administrative Politics; Perspectives on Organizational Thought; Motivation and Work; Politics of State Administration; Financial Management; Management Science. May be repeated for credit within the same term; topic must be different. Usually offered every term.

54.450 TOPICS IN ORGANIZATIONAL DEVELOPMENT (3) Special topics in organizational development. Examples include: Groups and Personal Interaction; Change Strategies in Communities and Organizations. May be repeated for credit within the same term; topic must be different.

54.480 TOPICS IN URBAN AFFAIRS (3) Special topics in urban affairs. Examples include: Urban Planning; Suburban Politics; Urban Affairs Seminar; State Government; Urban Finance. May be repeated for credit within the same term; topic must be different. Usually offered every term.

SPECIAL COURSES AND INTERNSHIPS

52.390 INDEPENDENT READING COURSE IN GOVERNMENT (1-6)*

52.430 LONDON SEMESTER (1) Seminar meetings with British public officials and observers of the British political process. Topics in British culture include art in London and the architecture of London taught by British instructors. Students enroll in several sections of this course. Usually offered every fall.

52.490 INDEPENDENT STUDY PROJECT IN GOVERNMENT (1-6)*

52.491 UNDERGRADUATE INTERNSHIPS (4) Specially arranged with director of undergraduate academic counseling, SGPA, in interest groups, congressional offices, and government agencies. Includes a weekly seminar. Usually offered every term.

WASHINGTON SUMMER SEMINAR

52.100 WASHINGTON SUMMER SEMINAR (2) Special course for advanced college credit for high school juniors and seniors. Systematic field study of major components of American national government and political processes that support and affect it. Examination of selected policy issues. Usually offered every summer.

WASHINGTON SEMESTER

56.410 WASHINGTON SEMESTER SEMINAR I (3) Selected students from cooperating institutions, and The American University, under the arrangements of the Washington Semester Program, study the U.S. Government in action through seminars, conferences, lectures, and guided seminar evaluations of experience. The research project is an individual analytical report prepared under the

* See description under General Curriculum Information in this publication.

guidance and counseling of the academic directors of the program. Usually offered every fall. *Prerequisite:* selection, must be taken concurrently with 56.411 and 56.412.

56.411 WASHINGTON SEMESTER SEMINAR II (3) Same as 56.410. Usually offered every fall. *Prerequisites:* selection, must be taken concurrently with 56.410 and 56.411.

56.412 WASHINGTON SEMESTER RESEARCH PROJECT (3) Same as 56.410. Usually offered every fall. *Prerequisite:* must be taken concurrently with 56.410 and 56.411.

WASHINGTON URBAN SEMESTER

56.413 URBAN SEMESTER SEMINAR I (3) Selected students from other colleges, including consortium schools and member institutions of the Washington Semester Program, as well as qualified undergraduates from The American University, study urban problems and politics of intergovernmental policy making in urban areas. Usually offered every fall. *Prerequisite:* must be taken concurrently with 56.414 and 56.415.

56.414 URBAN SEMESTER SEMINAR II (3) Same as 56.413. Usually offered every fall. *Prerequisite:* must be taken concurrently with 56.413 and 56.415.

56.415 URBAN SEMESTER SEMINAR III (3) Same as 56.413. Usually offered every fall. *Prerequisite:* must be taken concurrently with 56.413 and 56.414.

56.416 WASHINGTON SEMESTER INTERNSHIP (3) *Prerequisites:* open only to students in the Washington and Urban Semesters, as arranged with their academic directors.

Graduate and Advanced Undergraduate Courses

SPECIAL COURSES AND INTERNSHIPS

52.520 SUMMER TRAVELING SEMINAR (3-6) Overseas travel-study courses as announced in the Schedule of Classes. Under direction of senior faculty member. Has a nonstandard tuition rate.

53.500 STUDIES IN POLITICAL SCIENCE (4) Open to graduate students and junior and senior undergraduates with permission of the SGPA undergraduate office. Examples of studies include: Comparative Politics; China, Israel, and Japan; Comparative Public Policy; Politics of Modernizing Congress; Politics of Environmental Quality; Marxist, and Non-Marxist Socialism. May be repeated for credit within the same term; topic must be different. Usually offered every term.

54.500 STUDIES IN PUBLIC ADMINISTRATION (3) Topical courses in public administration such as governmental management, management science, and research for management. May be repeated for credit within the same term; topic must be different.

INTERNSHIPS, READINGS, AND RESEARCH

52.590 INDEPENDENT READING COURSE IN GOVERNMENT (1-6)*

Graduate Courses

All courses listed below carry graduate credit. The presentation of this curriculum is organized as follows: Political Science, Public Administration, Special Courses, and Internships. These courses are open only to graduate students in degree programs or to nondegree graduate students who meet the stated prerequisites.

POLITICAL SCIENCE

POLITICAL THEORY

53.600 MODERN POLITICAL THEORY (3) Political science as systematic inquiry, through intensive analysis of works of major political theorists from Machiavelli to twentieth century; applications to current questions of theory and method. Usually offered every term.

53.606 SYSTEMATIC POLITICAL THEORY (3) Tradition of political theory from Plato onward applied to current political research and to contemporary theory development. Usually offered every spring.

53.608 EARLY POLITICAL THOUGHT (3) Major thinkers, theorists, and trends from Greek, Roman, and Medieval eras.

* See description under General Curriculum Information in this publication.

POLITICAL SCIENCE RESEARCH

53.610 INTRODUCTION TO QUANTITATIVE METHODS IN POLITICAL SCIENCE (3) Application of techniques of bivariate analysis to measurement of political behavior; particular emphasis on techniques of relevance for political scientists and students of public administration. Usually offered every term.

53.611 CONDUCT OF POLITICAL INQUIRY AND RESEARCH I (3) Concepts, approaches, and methodologies of political science research; philosophy of science, scientific modes of inquiry, and sociology of knowledge; research design, theory, and measurement; application of the computer; methods and techniques of analysis. Usually offered every fall.

53.613 THE CONDUCT OF POLITICAL INQUIRY AND RESEARCH II (3) Introduction to systematic and formal theory; sets, counting, and probability; vectors; economic bases of political behavior; game theory. Usually offered every spring.

53.614 QUANTITATIVE METHODS IN POLITICAL SCIENCE (3) Application of techniques of multivariate analysis to measurement of political behavior. Usually offered every fall.

COMPARATIVE POLITICS

53.630 COMPARATIVE POLITICS AND POLICY ANALYSIS (3) An overview of comparative political analysis as it relates to the fields of development and international relations. The evolution of the field, current directions of major research, and variables in the policy process. Usually offered every fall.

53.631 DEVELOPMENTAL CONFLICTS AND POLITICAL CHANGE (3) A study of the causes and consequences of political and economic development. Begins with Marx and Weber. Examines political conflicts such as scarcity, marginality, and powerlessness. Analyzes interdependent sovereignty and cooperation, as well as the trade-off between equity and growth, using a comparative methodology. Usually offered every spring.

53.632 COMPARATIVE URBAN POLITICS (3) Comparative and cross-national study of urban politics and government, with special attention to the problems of migration, planning, political participation; urban policies compared and contrasted in their impact upon urban growth problems.

53.637 COMPARATIVE POLITICS: COUNTRIES (3) Special topics dealing with the Soviet Union, Western Europe, the Middle East, Africa, Communist China, Japan, and others.

53.639 STUDIES IN COMPARATIVE POLITICS (3) Selected problems in comparative politics such as problems in Comparative Public Administration and Comparative Policy Analysis. May be repeated for credit within the same term; topic must be different.

AMERICAN POLITICS

53.650 POLITICAL ANALYSIS (3) Introduction to major issues and controversies in political science; their relevance to contemporary political analysis; the relation of the following factors to public policy and political change: political development, participation, power, bureaucracies, and political parties; selected perspectives from related social sciences when applicable. Required course for new students in M.A. degrees. Usually offered every term.

53.651 THE LEGISLATIVE PROCESS (3) Function of legislative branch in American governmental system; emphasis on congress and comparative consideration of state legislature. Usually offered every term.

53.652 THE PRESIDENCY AND THE EXECUTIVE BRANCH (3) Analysis of presidential roles and function of federal executive branch; problems of presidential personality, executive-legislative relations, and policy formation.

53.653 AMERICAN FEDERALISM (3) Constitutional and functional interrelationships of national, state, and local government; concept of federalism in various dimensions of American life, comparison of the role of states in the American Federal system. Usually offered every fall and every summer.

53.654 POLITICAL ATTITUDES AND PUBLIC OPINION (3) Alternative explanations of political attitudes and behavior; political socialization; personality; sources of beliefs and behavior; theories of opinion change; small groups and political behavior; effects of communication on attitudes. Usually offered every spring.

53.655 POLITICAL PARTIES, INTEREST GROUPS AND LOBBYING (3) Approaches to study of American political parties; party organization; party in electorate and in government; party reform and the future

of American parties; interest group behavior; interaction with parties, elites, and executive agencies and the Congress.

53.656 VOTING BEHAVIOR, ELECTIONS AND CAMPAIGNS (3) Political participation and behavior in U.S. primaries and elections; management of campaigns; mass media and political organizations.

53.659 STUDIES IN AMERICAN POLITICS (3) Topical courses in American Politics. Examples include Reform of Congress, Congressional Research, and Electoral Reform. May be repeated for credit within the same term; topic must be different. Usually offered every term.

53.660 ADVANCED SEMINAR IN AMERICAN POLITICS (3) Advanced seminar offerings such as Positive Political Theory. Usually offered every spring.

PUBLIC LAW

53.670 JUDICIAL PROCESS AND POLICY MAKING (3) Basic concepts of jurisprudence of American legal system; analysis of federal, state, and local judicial processes and decision making; actors and roles in judicial process.

53.674 CONSTITUTIONAL LAW AND POLITICS (3) Involvement of American courts in such issues as legitimacy, conflict resolution, and representation; courts as political actors with respect to federalism; powers and limitations on government; advancement of individual and group interest and rights.

POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

53.680 AMERICAN PUBLIC POLICY (3) Analysis of role of government in formulating and implementing policies related to education, socialization, individual and group conduct, redistribution of benefits and burdens; introduction to policy analysis. Usually offered every fall.

53.682 FOUNDATIONS OF POLICY ANALYSIS: METROPOLITAN AND NATIONAL (3) Distributional impacts, externalities, role of risk and uncertainty in policy analysis; criteria for choice, normative tools for analysis and use of information and social welfare criteria in making policy decisions. Usually offered every term.

53.683 DESIGN OF POLICY RESEARCH (3) Introduction to experimental, quasi-experimental, and nonexperimental research designs; evaluation of alternative designs for policy research; use of data-collection techniques, sources, survey research, aggregate data analysis, use of regularly published U.S. Government economic, business, housing, and population data. Usually offered every spring.

53.684 PUBLIC AFFAIRS LABORATORY (3) Investigation of special topics to be arranged independently with designated faculty.

53.687 SCIENCE, TECHNOLOGY AND GOVERNMENT: INTERACTIONS AND ISSUES (3) Examinations of interactions and issues of science, technology, and government through historical, theoretical, interdisciplinary, and case problem approaches.

53.688 SCIENCE, TECHNOLOGY AND INTERNATIONAL AFFAIRS (3) Effects of science and technology on territorial state system, including changes in instruments of international conduct, and study of scientific components of foreign policy formation.

54.710 SEMINAR IN PUBLIC ADMINISTRATION (3) Rigorous examination of current issues and recent developments in public administration. Examples include: governmental management, research, public finance, organization theory, policy analysis, and urban affairs.

MANAGEMENT AND PUBLIC ADMINISTRATION

GOVERNMENTAL MANAGEMENT

54.610 PUBLIC MANAGEMENT (3) Focuses upon the activities and tasks of managers in public sector agencies; examination of varieties of public agencies, their contexts, organizations and technologies, and strategies available to managers to accomplish organizational tasks. Usually offered every term.

54.611 ORGANIZATION PLANNING AND CONTROL (3) Application of key concepts from systems analysis, management science, organizational dynamics, and administrative automation to planning and control of public systems in selected manpower, transportation, public safety, natural resources, national security, international, and science agencies. Usually offered every fall and alternate summers.

54.612 POLITICS OF ADMINISTRATION (3) Governmental institutions, powers, and relationships; external environment of management; relationships of national, state, and local governments to client groups, legislative bodies, other agencies, and professional associations and groups. Usually offered every term.

54.613 PROCUREMENT AND CONTRACT MANAGEMENT (3) Applications of major concepts and approaches in procurement and contract management; focus on application procedures, enforcement techniques, principles of negotiation, legal specifications, review and renewal processes, purchasing, and material management. Usually offered every spring.

54.614 PUBLIC PERSONNEL (3) Managerial responsibility in recruiting and developing governmental personnel; emphasis on labor-management agreements; design and classification of the position structure; appraisal of employee performance; grievance and appeal systems; motivation and morale of work force. Usually offered every spring and alternate summers.

54.615 MANPOWER UTILIZATION (3) Problems of training, motivation, and assessment of government manpower; emphasis upon application of current research on manpower utilization. Usually offered every fall and alternate summers.

54.616 LABOR RELATIONS IN PUBLIC EMPLOYMENT (3) Changing patterns of relationships among public employers, employees, and organizations of public employees; methods and implications of collective bargaining in public sector. Usually offered every spring and alternate summers.

54.617 ADMINISTRATIVE LAW (3) Legal context of public administration; emphasis on empowerment process, exercise of administrative powers, and judicial review of administrative actions. Usually offered every term.

54.618 PUBLIC MANAGERIAL ECONOMICS (3) Introduction to analytical tools of economic analysis; application of economic theory to managerial decision making in public sector. Usually offered every term.

54.619 ADMINISTRATION OF INTERNATIONAL PROGRAMS (3) Comparative analysis of national and international processes and problems focusing on administration of foreign policy of United States and selected U.N. programs. Usually offered every spring.

54.620 PROGRAM ANALYSIS AND EVALUATION (3) Introduction to the elements of policy and program analysis for public program managers. Three components of the course are: consideration of normative criteria for program evaluation; introduction to systematic strategies for assessing and measuring impact of program elements and policy changes on outcomes; introduction to the logic and limitations. Usually offered every spring and alternate summers.

54.623 ORGANIZATION AND MANAGEMENT THEORY (3) Political, sociological, economic, and social-psychological theories of complex organizational structures; emphasis on the role of value systems and ethics in administration process.

54.629 STUDIES IN GOVERNMENTAL MANAGEMENT (3) Studies in topical courses in governmental management. Examples include: reorganization, forecasting and managing change, women in management, equal employment opportunities in public service. Usually offered every term.

FINANCIAL MANAGEMENT

54.631 PUBLIC FINANCIAL ADMINISTRATION (3) The administrative framework for government financial management and its theoretical base. Budget systems and automated financial control systems; theory and practice of purchasing and inventory control, theory and practice of cash management and the investment of short-term balances. Usually offered every fall.

54.632 GOVERNMENTAL BUDGETING (3) A comprehensive overview of why budgeting exists, how the process works, and who the main actors are. Decision making theories; resource allocation strategies; program evaluation methodologies; quantitative aids; legislative and intergovernmental relation processes; organization and personnel needs; economic ramifications of alternate fiscal and spending priorities politics. Usually offered every term.

54.634 PUBLIC FINANCIAL ANALYSIS (3) Analysis and administration of capital improvements and debt, and methods of forecasting. Capital improvements programming and budgeting; use of cost benefit techniques for capital improvements evaluation. Foundations of debt policy, the system for rating state and local bonds, design base, forecasts of expenditures, revenues and debt, use of input-output models, large economic models and specialized computer models. Usually offered every spring and alternate summers.

54.635 FINANCING GOVERNMENTAL SERVICES (3) A survey of the economics of federal, state, and local expenditures, taxes, user charged, grants-in-aid and debt with special emphasis on state and local governments. Usually offered every term.

54.639 STUDIES IN FINANCIAL MANAGEMENT (3) Topical course offerings in financial management. Examples include regulatory policy, commercial banking, and public policy. Usually offered every term.

MANAGEMENT SCIENCE

54.640 SYSTEMS ANALYSIS/OPERATIONS RESEARCH IN PUBLIC ADMINISTRATION (3) Introduction to systems analysis/operations research; application of scientific method to decision-making problems in public administration at international, national, and local levels.

54.641 PUBLIC MANAGEMENT OF SCIENCE (3) Major organizational issues in Federal government's support and use of science and technology; problems of organizational competition planning and implications of governmental support for research.

54.642 COMPUTER APPLICATIONS FOR PUBLIC MANAGERS (3) Examination of use and impact of computer in public administration; introduction to principle components in computer systems; applications to managerial problem solving; social questions arising from use of computer. Usually offered alternate falls.

54.645 SKILLS FOR PUBLIC MANAGEMENT (2) Acquisition of specific management skills, such as written and oral communication and design of management by objective programs; computer utilization, and others. Each module consists of twenty and a half hours of instruction over a seven week period. May be repeated for credit within the same term; topic must be different. Usually offered every term.

ORGANIZATIONAL DEVELOPMENT AND CHANGE

54.650 LEADERSHIP FOR PUBLIC MANAGEMENT (3) Analysis of individual students potential or actual leadership style and capacity in public agencies through group experiences, relevant theory, and individual learning instruments. Usually offered every term.

54.651 GROUPS AND ORGANIZATIONS (3) Groups phenomena; decision making, norm setting, membership, internal differentiation, leadership; intensive group processes; observation of real-life groups in action; practical application of learning experience to such groups as governing boards, committees in government institutions, etc.

54.652 CHANGE STRATEGIES FOR MANAGERS (3) Strategies and techniques derived from behavioral science knowledge and utilized to improve effectiveness of individuals, teams, and organizations are revised and practiced. Includes data collection and feedback, group process observation, team building, conflict management and structural interventions. Includes survey of current applications, trends, and professional issues. Usually offered every term.

54.653 HUMAN PROBLEMS IN ORGANIZATIONS (3) Various concepts of individuals and organizations are explored, using didactic and experiential methods. Class members have the opportunity to examine their organizational work life in the context of their own personal development. Usually offered every spring.

54.654 DEVELOPING INTERVENTION STRATEGIES (3) Framework for relating concepts from organization theory and change techniques to systematic strategies for intervention. Usually offered every fall.

54.655 ORGANIZATIONAL DIAGNOSIS (3) Design and conduct of diagnostic studies of work teams through use of behavioral science tools; review of organizational theories, data collection, feedback techniques, and methods for evaluation of interventions into organizational systems. Usually offered every fall.

54.656 PERSONALITY THEORY AND ORGANIZATIONS (3) Social psychology of the organization; motivation, leadership, and revitalization of organizational personnel; theories of personal motivation.

54.657 INSTITUTE ON ORGANIZATIONAL DEVELOPMENT AND CHANGE (3) Specialized program emphasizing experiential learning and discussion of underlying theories. Usually offered every term.

54.659 STUDIES IN ORGANIZATIONAL DEVELOPMENT (3) Selected topics in organizational development and change. Examples include: career development, organization theory, and human resources.

RESEARCH FOR MANAGEMENT

54.661 METHODS OF PROBLEM SOLVING I (3) Use of analytic techniques to solve problems in policy analysis and public administration, with an emphasis upon the application of statistics and systems analysis to public policy problems. Problem definition, assumptions behind problem-solving strategies, and use and limits of quantitative approaches. Usually offered every term.

54.662 METHODS OF PROBLEM SOLVING II (3) Introduction to the use of multivariate analysis and operations research in defining and solving problems in public policy development and analysis. A continuation of 54.661 at a higher level. Usually offered every term. *Prerequisite:* 54.661.

54.670 HEALTH PROGRAM PLANNING AND EVALUATION (3) The study and application of planning and evaluation techniques through case studies in program design and measurement of program outcome. Usually offered every fall.

54.671 HEALTH AND HUMAN SERVICE SYSTEMS (3) Service and control components of the health services system, the practices they employ, interactions with one another, and with other human service delivery systems. Usually offered every spring and alternate summers.

54.672 HEALTH AND THE COMMUNITY (3) Analysis of the values and behavior of individuals and groups with regard to health practices and to the development and use of service resources at the community level. Usually offered every spring and alternate summers.

54.673 POLITICS AND CONTEMPORARY HEALTH ISSUES (3) Selected major issues and directions in national health policy examined from the perspective of both political dynamics and systematic policy analysis. Usually offered every spring and alternate summers.

URBAN AFFAIRS

54.680 URBAN POLITICS (3) Introduction to study of urban affairs; analysis of selected problems related to population change, and urban bureaucratic responsiveness; analysis of alternative governmental forms; metropolitan decision making; intergovernmental relations. Usually offered every term.

54.681 METROPOLITAN ANALYSIS (3) Interdisciplinary course in development of new approaches and methods for analyzing policy decisions in metropolitan areas; focus on theoretical and empirical applications of social science to urban public policy. Usually offered every spring.

54.682 MANAGING URBAN GROWTH (3) Examination of causal factors associated with urban growth; analysis and evaluation of alternative mechanisms for managing growth in urban and metropolitan areas; specific attention to legal, economic, and political aspects of the problem. Usually offered every term.

54.684 URBAN PLANNING (3) Emphases include comprehensive land planning, social and economic planning, transportation, renewal, rehabilitation, and housing; focus on political and intergovernmental context of planning and development functions and decisions. Usually offered every term.

54.686 INTERGOVERNMENTAL RELATIONS (3) Analyzes the political, fiscal, and administrative relationships which help to shape the complex intergovernmental system. Federal, state, local, and other jurisdictions are examined in light of their impact on the intergovernmental system. Usually offered every spring.

54.687 URBAN MANAGEMENT (3) Examination of council-manager relationships, workforce staffing and development, the budget and community goals, as well as ethical example and control and external and regional effectiveness. Usually offered every fall.

54.689 STUDIES IN URBAN AFFAIRS (3) Topical course offerings in urban affairs. Examples include: Neighborhood Government, Evaluating Urban Services, Problems of State Government Organization and Administration, Urban Housing Policy, and Science and Technology for Urban Administration. Usually offered every term.

SPECIAL COURSES AND INTERNSHIPS

52.610 PUBLIC MANAGEMENT FOR KEY EXECUTIVES (3) An examination of the environments, technologies, and strategies which characterize professional public management in a variety of organizational settings. A clinical approach to the problems of governmental management at all levels. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.612 POLITICS OF ADMINISTRATION FOR KEY EXECUTIVES (3) The political context of public administration for management practitioners. Processes by which policy is formulated, implemented and evaluated in the American Federal System. Governmental institutions, powers, and relationships. Factors (political, economic and social) in the environment which condition processes of decision making. Case studies and outside speakers. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.630 PUBLIC FINANCIAL MANAGEMENT FOR KEY EXECUTIVES (3) The study of public finance for management practitioners from the perspective of economics and administration: economic concepts; alternative taxing modes and distributional impacts; financing on credit in the public sector; intergovernmental fiscal transfer mechanisms; the analysis of demand for public services; financial mechanisms and the potential for income redistribution; assessment policy and administration; financial planning and forecasting; capital improvements and programming. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.645 MANAGEMENT SKILL MODULES FOR KEY EXECUTIVES (2) Participants in the Key Executive Program select four skill modules they wish to be taught. Suggested options include contract management, human interaction laboratory, computer systems literacy, budget presentation, managing conflict, labor negotiation skills, and others. Students enroll in two of the four modules: a student may choose to take both modules in either the summer or the fall, or one in the summer and one in the fall. May be repeated for credit within the same term; topic must be different. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.650 LEADERSHIP FOR PUBLIC MANAGEMENT FOR KEY EXECUTIVES (3) Focuses upon the leadership capabilities of each class member. Combines individual learning instruments, group experiences, and relevant theory so that managers can examine their own styles as leaders and members of task group, all within the context of their participation as managers in a public bureaucracy. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.660 METHODS OF PROBLEM SOLVING FOR KEY EXECUTIVES (3) Methods of analysis and inference applicable to problems of management. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.672 ADMINISTRATIVE LAW FOR KEY EXECUTIVES (3) The empowerment process. Vesting of powers in administrative agencies; constitutionality of the delegation of legislative power; problems of agency action unauthorized by law; disclosure; problems of agency action beyond authority; controls of agencies exercised by Congress; controls by the President. Acquisition of information; quasi-legislative action in rule-making Freedom of Information Act; EEOC, etc. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.690 INDEPENDENT STUDY PROJECT IN GOVERNMENT (1-6)*

52.691 GRADUATE INTERNSHIPS IN NATIONAL, STATE, LOCAL GOVERNMENTS OR RESEARCH ORGANIZATIONS (3) Arrangements for scheduled work assignments in participation, observation, and research, and seminar integration under cooperative supervision of government or research director and member of school faculty. Usually offered every term.

52.693 RESEARCH AND ANALYSIS SEMINAR I FOR KEY EXECUTIVES (3) Application of methods of analysis and inference to problems of management. Students are asked to (1) interpret and evaluate data and reports relating to their agencies, and (2) design and execute research dealing with a problem of management in their agencies. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in Key Executive Program.

52.694 RESEARCH AND ANALYSIS SEMINAR II FOR KEY EXECUTIVES (3) Application of methods of analysis and inference to problems of management. Students are asked to (1) interpret and evaluate data and reports relating to their agencies, and (2) design and execute research dealing with a problem of management in their agencies. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.695 SEMINAR ON CAREER DEVELOPMENT FOR KEY EXECUTIVES (3) Participants examine their professional interests and needs and develop strategies for improving job performance and satisfaction. Students construct an agenda for their career development and devise a plan to achieve these objectives. Data drawn from the seminar are used to tailor part of the Key Executive curricu-

*See description under General Curriculum Information in this publication.

lum. Has a nonstandard tuition rate. *Prerequisite:* open only to participants in the Key Executive Program.

52.698 GRADUATE INTERNSHIP SEMINAR (3) Application of organizational theory to analysis of behavioral dynamics in host agencies. Usually offered every term.

School of International Service

DEAN Gregory B. Wolfe

FULL-TIME FACULTY

Professor T. A. Couloumbis, J. J. Finan, R. W. Gregg, C. H. Heimsath, A. D. Mott, H. Mowlana, F. J. Piotrow, D. C. Randall, A. A. Said, J. J. Sisco, A. R. Taylor, B. B. Tyson, A. L. Vilakazi, L. W. Wadsworth (Grazier Memorial Professor of International Law), M. P. Walker, L. C. Wilson, G. B. Wolfe

Associate Professor G. M. Bonham, D. L. Clarke, S. D. Cohen, W. C. Cromwell, L. L. Lubrano, N. G. Onuf, G. L. Wood

Assistant Professor S. H. Arnold, C. W. Chung, L. D. Howell, A. Suhrke

Visiting Professor H. R. Cottam, R. Manglapus

Professor Emeritus M. E. Bradshaw, W. Y. Elliott (Univ. Emer.), R. H. Gabriel, (Univ. Emer.), E. S. Griffith (Univ. Emer.), G. L. Harris, W. G. Hunsberger, M. D. Irish, K. P. Landon, M. F. Lindsey, P. B. Potter, H. M. Randall, D. V. Sandifer, S. L. Sharp (Univ. Emer.), T. Yoshihashi

The School of International Service offers programs and concentrations in international relations, foreign area and cross-national studies, policy analysis, and international development. Its fields of study include international law and organization, international communication, United States and comparative foreign policy, regional international systems, and comparative government and politics. The approach is at once disciplinary, multidisciplinary, and interdisciplinary. It draws upon the faculty resources of the entire University, including those in anthropology, economics, history, languages and linguistics, philosophy and religion, and political science. Moreover, the school consciously integrates the several disciplines, giving a broad approach to the study of international affairs. In these endeavors, the large and varied faculty of The American University in international studies is complemented by faculty resources of the Consortium of Universities of the Washington Metropolitan Area.

Special features of the School of International Service include the opportunity for independent study projects and internships drawing on the outstanding resources of the Washington area. The school serves as a focal point for a comprehensive program in Latin American studies offered through the Consortium of Universities. The World Human Needs Program offers special opportunities for the study of various world human needs problems, the interrelationships among them, and strategies for dealing with them in a human context. Further information on these special features is available from the dean of the school.

CENTER FOR ASIAN STUDIES The center coordinates Asian studies throughout the University, and administers those programs on Asia offered by the School of International Service. Programs are available at the undergraduate, master's, and doctoral levels, with emphasis on South Asia, Southeast Asia, and East Asia (China and Japan). The programs of the Center for Asian Studies utilize not only the resources of The American University but also those of other members of the Consortium of Universities.

The center will award a Certificate of Asian Study to every student upon completion of a degree program which has included a significant emphasis in Asian Studies. Undergraduates who wish to qualify for the certificate must complete, satisfactorily, four or more courses on Asia or in an Asian language. Graduate students who wish to qualify for the certificate must complete, satisfactorily, at least one area related comprehensive examination, appropriate degree level area language certification, and a substantial research paper, thesis, or dissertation dealing with the area.

For further information, write to the Director, Center for Asian Studies, Cassell Center, The American University, Washington, D.C., 20016.

PITMAN B. POTTER CENTER FOR WORLD ORDER The Pitman B. Potter Center for World Order was established in 1974 to coordinate course offerings related to the problems of peace and world

order from a variety of disciplines; to sponsor lectures and seminars related to these fields; and to facilitate research projects by serving as an informational and resource base for the Washington, D.C., area.

Although no specific series of courses has been laid down for a degree program in world order, a student who desires to pursue such a program would, under current University regulations, be permitted to arrange an interdisciplinary degree at either the B.A. or the M.A. level. For further information, contact the Director, The Pitman B. Potter Center for World Order, The American University, Washington, D.C., 20016.

Undergraduate Washington Semester Program In Foreign Policy

ADMISSION TO THE PROGRAM Open to students from the Washington Semester colleges as part of the Washington Semester program, as well as to juniors and seniors in good standing at The American University. Recommended prerequisite: at least one course in government or foreign affairs.

Set Requirements	33.491, 33.492, and 33.493.
Required Options	As their fourth course, students may elect either: 33.494 or a regular course from among the <i>evening</i> offerings at The American University.
Special Opportunities	Internships; seminars with policy makers; field trips to various Washington government agencies.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Washington Semester Program in International Development

ADMISSION TO THE PROGRAM Open to students from the Washington Semester colleges as part of the Washington Semester program, as well as to juniors and seniors in good standing at The American University. Recommended prerequisites: at least one course in economics, and two or more courses in at least one other social science or area studies field.

Set Requirements	33.492, 33.493.
Required Options	33.491, 33.494. In place of either or both of these courses, students may select, with approval of the advisor, other American University courses related to development.
Special Opportunities	Internships; seminars with policy makers; field trips to development organizations; International Development Forum.

DEGREE OBJECTIVE This program does not lead to a degree. Students earn undergraduate credit that may be applied toward the requirements for a bachelor's degree.

Undergraduate Program in International Studies

ADMISSION TO THE PROGRAM Candidates for admission to the school must present evidence of excellent personal and academic qualifications. Eligibility for freshman admission consideration normally requires at least a B average in secondary school. Other factors considered are leadership qualities, character, and personal interests. Students from other regionally accredited collegiate institutions and students in other majors at The American University who have completed the first semester of the freshman year should maintain at least a cumulative B grade-point average in order to be eligible to apply for transfer to the school.

Set Requirements	33.202, 33.151, 33.152, 19.101, and 19.102.
Required Options	(1) one from the following: 33.161, 33.162, 33.164, or 33.165; (2) one from the following: 33.100, 53.100, 53.130, or 53.150; (3) and three additional courses in two of the three following fields: international relations, foreign area and cross-national studies, and policy analysis; (4) tool requirement: a modern language through the intermediate level or a two semester quantitative sequence, 33.307 and 33.513.

Special Opportunities

Senior honors, internships, modular semesters, and independent study or research.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in International Studies.

Undergraduate Program in Language and Area Studies

MAJORS French/Western European Area Studies, German/Western European Area Studies, Russian/U.S.S.R. Area Studies, Spanish/Latin American Area Studies.

ADMISSION TO THE PROGRAM Freshmen and transfers are admitted to the School of International Service or to the Department of Language and Foreign Studies. They must achieve a B (3.00 on a 4.00 scale) or better cumulative grade-point average and determine their language and area before they are formally recognized as majors.

Set Requirements

All students are required to take the following courses in the appropriate languages: (1) Intensive Elementary and Intermediate I and II or equivalent; (2) Conversation and Composition I and II, or approved substitutes; (3) Civilization I and II.

Required Options

(1) Eight additional courses relevant to the area of specialization to be selected by the student in consultation with his advisor from among those offered in anthropology, economics, history, international relations, political science, or 500-level literature and interdisciplinary courses and colloquia in the Department of Language and Foreign Studies. The eight must be distributed among two or more of these fields or disciplines, and may not include required prerequisites which are not specific to the area; (2) A total of 15 semester hours must be taken in the Department of Language and Foreign Studies, and a total of 15 semester hours must be taken in the School of International Service, of which a minimum of 6 semester hours must be in the area of specialization (they may be among the eight courses listed above).

Special Opportunities

International Relations Club, language clubs.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in French/Western European Area Studies, German/Western European Area Studies, Russian/U.S.S.R. Area Studies, or Spanish/Latin American Area Studies.

NOTE ALSO This degree is administered jointly with the Department of Language and Foreign Studies.

Master's Program in International Studies

ADMISSION TO THE PROGRAM Admission is limited to students holding the baccalaureate degree from an accredited institution, who have earned at least a B average in fields related to international relations, including the traditional social sciences. Students who are admitted but who have not completed the 24 semester hours in the social sciences, will be expected to complete additional work in the areas where background deficiencies are deemed to exist at the time of admission. *All* applicants for the program (including foreign students) are required to take the Aptitude Section of the Graduate Record Examination. The Admissions Committee takes into consideration cultural factors in its decisions. All applicants must supply at least two letters of reference evaluating both their undergraduate performance and their suitability for undertaking graduate study in the chosen fields. Applicants will be considered for admission at any regular term of the University, including summer, but fall semester admission is preferred.

Requests for transfer of up to six graduate semester hours from other accredited institutions are considered at the time of advancement to candidacy. No grades below B will be accepted for transfer. Requests for transfer credit will be accepted only if the work is relevant to the graduate degree program. As a rule, graduate work completed more than eight years prior to the semester of admission will not be considered.

Course Requirements

30 semester hours of graduate credit is required. Of these, 6 hours are devoted to the thesis or nonthesis options. The remaining 24 hours are distributed among courses that prepare students for the comprehensive examinations. It is expected that students will take a minimum of three

	courses in each comprehensive examination field. The student will be assisted in developing appropriate course concentrations which guarantee that a minimum of 12 hours are taken within the School of International Service.
Special Opportunities	Independent study courses and internships. The school offers unusual opportunities for students to meet renowned scholars and practitioners of international relations and to discuss research and career interests.
Advancement to Candidacy	Students must apply for advancement to candidacy upon completion of 12-18 semester hours of graduate work at The American University (with an average of B or better). Students must have completed all deficiencies specified at the time of admission, and have made up all incomplete course work. If, at the end of 18 hours, or at any time thereafter, a student's average is below B, he is subject to dismissal from the University. When eligible for advancement to candidacy, students formally designate their comprehensive examination fields and tool of research in consultation with faculty advisors. Students who plan to apply for comprehensive examinations must apply for advancement to candidacy at least one month prior to the announced deadline for comprehensive application.
Tools	Candidates must pass an examination in one modern foreign language, or in statistics, or in another approved quantitative field that will serve as a tool for research. When modern foreign languages are offered as tools of research, the standards of the Foreign Service Institute of the Department of State are applied. For European languages the "3-level" translation only is required; for other languages "2-level" translation only. Examinations are administered by the Department of Language and Foreign Studies. To complete the research tool in statistics at the M.A. level, students are required to obtain a minimum grade of B in two courses: 33.611 and 53.510. To complete the M.A. research tool in computer programming (SPSS) students are required to obtain a minimum grade of B in two courses: 33.611 and 33.513. In lieu of these courses for both quantitative research tools, students may opt to take and complete (with a B) a written equivalency examination given in the highest course at each level.
Examination	Each student must satisfactorily complete a written comprehensive examination in each of two fields formally selected at the time of advancement to candidacy. A student may select any two SIS fields or one SIS field and a second regularly offered field from another discipline at The American University (i.e., economics, political science, public administration, anthropology, history, sociology, psychology, and literature). SIS comprehensive examination fields include: International Relations (33.001); International Law and Organization (33.021); International Communication (33.051); International Development (33.S18); U.S. and Comparative Foreign Policy (33.081); Comparative Politics and Policy Analysis; World Human Needs (33.S17); Regional International Systems: Latin America (33.061A); Western Europe (33.061B), USSR (33.061C), Middle East (33.061D), Africa (33.061E), The Indian Subcontinent (33.061F), and East and Southeast Asia (33.061J). A student must be advanced to candidacy in order to be eligible to take the comprehensive examinations. (see Advancement to Candidacy above). Comprehensive examinations administered by the school are offered during the fall, spring, and summer. Application deadlines and the beginning dates of the examination period are as follows: the application deadline for fall comprehensives will be the last class day of September and as a rule, the examination period will begin the first

Monday after Thanksgiving. The application deadline for spring comprehensives will be the last class day of January and the examination period will normally begin the third Monday in March. The application deadline for summer comprehensives will be set by the Graduate Office and, as a rule, the examination period will begin the fourth Monday in July.

Students are allowed six hours in which to write each examination. Examinations must be taken either within a single semester or in two consecutive semesters.

Students may attempt the comprehensive examinations a cumulative total of four times during which two examinations must be passed. If an examination is failed, it must be retaken within one calendar year. Students may petition for an oral examination only on a retake.

Thesis

A thesis, or two substantial research papers are required (a total of six semester hours in either case), one in each field to be prepared in conjunction with an advanced course or research seminar in the field, or as an independent research project.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in International Studies.

Master's Program in International Communication

ADMISSION TO THE PROGRAM In addition to the general/admissions standard for the master's program in international studies, students applying for admission to this program must include a strong major or minor in social and behavioral sciences or communication in their undergraduate backgrounds. For further information, write to Director, Program in International Communication, School of International Service, The American University, Washington, D.C., 20016.

Course

Requirements

30 semester hours of graduate credit are required for the Master of Arts in International Communication: (1) 33.640, 33.642, and either 33.643 or 33.644; (2) 9 hours in a related field; (3) 6 hours in methodology of research or research seminars in international communication; and (4) 6 hours of thesis or two substantial research papers (nonthesis options).

Special

Opportunities

The School of International Service offers a summer program in International Communication in London. Graduate and undergraduate students are provided an opportunity to combine theoretical knowledge with practical observation of communication in international relations. The program consists of an intensive five-week schedule of activities which, with the cooperation of various British colleges and universities, includes seminars with leading European experts in international communication. Credit earned in the London program may be applied by students toward their degree programs.

Advancement to Candidacy

Same as for master's program in international studies.

Tools

All candidates for the degree of Master of Arts in International Communication must pass a tool of research examination in a modern foreign language, translation only, at a "3-level" for European languages and a "2-level" for other languages, according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies.

Examinations

Students are required to take two written comprehensive examinations, one in international communication and the other in a second field approved by their faculty advisor. Students follow the same eligibility, scheduling, completion, and retake requirements as those indicated for the master's program in international studies.

Thesis

A student may elect to submit a thesis (for six semester hours) or two substantial research projects prepared in conjunction with two three hour courses in the field, at least one of which must be completed in international communication.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in International Communication.

Master's Program in International Development

ADMISSION TO THE PROGRAM See admission requirements for master's program in international studies.

Course Requirements A total of 39 semester hours are required to be selected in the following manner: (1) Basic Introductory Course: (3 hours) 33.601; (2) Core Courses: (9 hours) 33.637, 03.544, and 19.560 (note prerequisite: 19.603). (3) Skill Courses: (6 hours) students select two of the following: 33.611, 33.513, 53.510, 53.650, and 53.660. (Note: other courses may be added to this list—consult international development coordinator). (4) Specializations: (15 hours) students select any five development-related courses that apply directly to their particular interests (courses may be combined in different ways to meet individual needs, in consultation with a faculty advisor, e.g., development administration, community development and communication, world human needs, and economic development. (5) Research Requirement: (3 hours) a multidisciplinary thesis in the area specialization, supervised by two members of the faculty is required. (6) Internship: (3 hours) an internship with an organization concerned with international development is required.

Special Opportunities The American University offers a rich environment to students preparing for careers in international development and societal affairs. Many faculty members combine their teaching with practical involvement in development-related activity outside the classroom. The location of the University's School of International Service in Washington, D.C., offers students unusual contact with leaders of many of the international development organizations.

International Development Forum The School of International Service, in conjunction with the Washington, D.C., chapter of the Society for International Development, sponsors a weekly International Development Forum. The forum invites noted scholars and policy makers to interact on campus with students, faculty, and members of the Washington development community in discussions of current issues in the international development field.

Advancement to Candidacy Same as for master's program in international studies.

Tools Certification in one tool of research is required with the same options available as those listed under the master's program in international studies.

Examinations One comprehensive examination is required on the core courses. Students follow the same eligibility and scheduling requirements as those indicated for the master's program in international studies. A student failing the comprehensive examination may retake it *once* within a single calendar year.

Thesis A multidisciplinary thesis, in the student's area of specialization, supervised by two members of the faculty. Students must register for three semester hours of 33.797.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in International Development.

NOTE ALSO Students not wishing to enroll in the M.A. program in international development, but who are seeking a development emphasis, may elect the M.A. program in international studies. The student selecting that program may take one comprehensive examination in international development and a second examination in any field recognized by SIS and approved by a faculty advisor.

Doctoral Program in International Studies

ADMISSION TO THE PROGRAM Applicants for the Ph.D. degree must possess (or be in the process of completing) a master's degree, or its equivalent. The degree must be in a relevant field,

from an accredited institution. The student's cumulative grade-point average in all graduate work must be substantially higher than B. The Aptitude Section of the Graduate Record Examination is required of *all* applicants, including foreign students. The school takes cultural factors into account in making decisions. Applicants must supply at least two letters of reference evaluating both their graduate performance and their suitability for undertaking doctoral level study.

Applicants for the Ph.D. degree will be considered and admitted for the fall semester only of each academic year. February 1 is the deadline for receipt of applications and supporting materials. Though applicants for part-time doctoral study are eligible for admission, such students are strongly encouraged to devote at least one academic year of full-time study during the course of their program.

Course Requirements

A minimum of 72 semester hours of approved graduate credit is required for the Doctor of Philosophy degree, of which a total of 12 hours is to be in 33.799. 33.611 is also required.

A doctoral student may transfer up to 30 semester hours (minimum grade of B). Previously earned M.A. credit will be accepted toward the doctorate in proportion to its relevance to the student's overall graduate program as determined by the selection of comprehensive fields and dissertation subject. Requests for transfer of graduate credit from other accredited institutions are considered at the time of advancement to candidacy. As a rule, an M.A. program, or other graduate work completed more than eight years prior to the semester of admission, will not be considered.

Advancement to Candidacy

Students must apply for advancement to candidacy no later than the semester in which 18 semester hours of graduate work beyond the M.A. will have been completed in residence. Any incomplete work and course deficiencies specified at the time of admission must be completed by the time of application for advancement to candidacy. An average of substantially better than B in all doctoral level course work is required for advancement to candidacy at this time. A student who is ineligible for advancement to candidacy will not be permitted to continue in the program.

In addition to the foregoing, the following steps and requirements must be accomplished in order to qualify for advancement to candidacy.

(1) An application for advancement to candidacy prepared in consultation with and endorsed by a faculty advisor must be submitted. The application will outline in detail the doctoral program of study. It will include the following: specification of fields for comprehensive examination and the proposed tool of research and a carefully reasoned statement elaborating the major focus of specialization, which may be a subfield of a broader discipline or area of interest. It may cut across and tie together two or more disciplines. The statement should relate directly to the student's course work and one or more of his comprehensive examination fields.

(2) Applications for advancement to candidacy must also include a general description of the intended dissertation topic. The tool of research must be justified in terms of its appropriateness to the dissertation topic or to other aspects of the candidate's research interests which have constituted part of the program that has been pursued.

(3) Each student must pass an oral qualifying examination in order to be eligible for advancement to candidacy. This is to determine the prospective candidate's competence in the general field of international studies, and, particularly, his grasp of the area(s) of specialized interest and the fields chosen for the comprehensive examinations. The examination will seek to evaluate the student's suitability for continued study toward the doctorate. If a student fails to pass the qualifying examination he may petition for a retake which, if granted, must be completed within nine months.

Tools

Candidates for the Ph.D. must pass a tool of research examination in one modern foreign language, in statistics and quantitative analysis, or in another quantitative tool, to be approved at the time of advancement to candidacy.

In the case of a modern foreign language, the proficiency required for European languages is "4-level", for East Asian languages "2-level", and for other languages "3-level", according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Languages and Foreign Studies.

The research requirement in statistics may be satisfied by a minimum grade of B in three courses: 33.611, 53.510, and 53.614. The research requirement in computer programming may be satisfied by a minimum grade of B in three courses: 33.611, 33.513, and either 40.260 or 55.333.

For the quantitative tools, the student has the option of passing (with a B) a written equivalency examination given in the highest course at each level.

Examinations

Students are required to choose one major and two minor fields. The major field and one of the minor fields must be selected from among SIS fields and must include international relations as either a major or a minor field. The second minor field may be another SIS field or an elective field. Students are expected to demonstrate the germaneness of the proposed field to their total program of study.

SIS comprehensive examination fields offered at the Ph.D. level include: International Relations (33.001) required; International Law and Organization (33.021); International Communications (33.051); U.S. and Comparative Foreign Policy (33.081); Comparative Politics and Political Analysis; Regional International Systems; Latin America (33.061A); Western Europe (33.061B); U.S.S.R. (33.061C); Middle East (33.061D); Africa (33.061E); Indian Subcontinent (33.061F); and East and Southeast Asia (33.061J).

Elective Fields: Any existing field in the College of Public Affairs, or in anthropology, economics, history, psychology, or sociology, as approved by the students' faculty advisor and the Dean of the School of International Service.

In addition, students may propose a field not already existing (e.g., quantitative methods) according to the following provisions: They must present a statement including the scope, content, and academic justification for the field along with proposed course work. The statement requires the endorsement of at least three members of The American University faculty representing the proposed field. A comprehensive examination will be subject to the concurrence of a student's advisor and the Dean of the School of International Service.

A *major field* is generally defined as the core course sequence, at least three other courses germane to the field as determined in consultation with the student's advisor, and a colloquium. An oral comprehensive examination will be taken in the major field.

A *minor field* is generally defined as the core course sequence plus at least two courses germane to the field as determined in consultation with the student's advisor. Written examinations will be taken in both minor fields.

To take the comprehensive examinations students must first be advanced to candidacy. All preparatory courses for the examination(s) to be taken, exclusive of the appropriate research requirement, must be completed or in progress.

See scheduling instructions under M.A. program in international studies. Note: No oral examinations will be scheduled during the summer. Doctoral students must apply for advancement to candidacy at least six

weeks prior to the appropriate application deadline, even if the minimum course work hours are still in progress.

Written comprehensive examinations are of six hours duration. Oral examinations are of one to two hours duration. Comprehensive examinations must be commenced within one calendar year following completion of all course residence requirements for the degree. Examinations must be taken either within a single semester or in two consecutive semesters.

A Ph.D. student may attempt the comprehensive examinations a cumulative total of six times during which he must pass three examinations (this does not include the oral qualifying exam). If a student fails an examination, he must retake it within one calendar year.

Dissertation

Students register for 12 semester hours of doctoral dissertation supervision. The requirement is fulfilled by the completion of an acceptable dissertation and by a successful defense of the dissertation in an oral examination. The dissertation standard requires high quality original research in a subject which is directly related to the student's program emphasis.

Although the student is asked to present a general statement of his dissertation subject plans when applying for advancement to candidacy, the formal proposal is presented for acceptance, and appointment of a faculty dissertation committee, only after all comprehensive examinations have been successfully completed.

The topic, formal outline, and composition of the dissertation committee—or any changes thereof—are subject to endorsement by the SIS dean. The tool of research must be certified prior to formal topic acceptance. Registration for dissertation supervision credit should take place only after all comprehensive examinations have been completed.

Following completion of comprehensive examinations, the candidate and the dissertation committee chairman (or faculty advisor, if a committee has not been appointed) are required to file a dissertation progress report with the school's Office of Graduate Studies every semester. When these reports are submitted, the candidate may request a meeting of the dissertation committee to discuss progress or special problems. Dissertation committees are obliged to meet with candidates upon such request.

DEGREE OBJECTIVE Students receive a degree of Doctor of Philosophy with a major in International Studies.

NOTE ALSO Grade-Point Requirement: Doctoral students are expected to maintain a minimum 3.25 grade-point average on a 4.00 scale. A doctoral student who has not achieved the minimum grade-point average by the time for advancement to candidacy will not be permitted to continue further in the doctoral program. Should the grade average fall below the minimum requirement at any time after advancement to candidacy, students are subject to dismissal from the University. The minimum grade-point average shall constitute the minimum grade-point requirement for graduation.

Courses of Instruction

Undergraduate Courses

WORLD CIVILIZATIONS, CROSS-NATIONAL, AND REGIONAL SYSTEMS

33.151 WESTERN TRADITION I (3) Origins in Judaism, Greek philosophy, and Roman law and administration. Phenomenon of growth and stagnation in classical, Islamic, and medieval Christian civilization. Millennialism and change. Usually offered every fall.

33.152 WESTERN TRADITION II (3) Crisis of religious man, birth of scientific civilization, rationalism, secularization, romantic reaction, and roots of the totalitarianisms of left and right. Usually offered every spring.

33.161 CIVILIZATIONS OF ASIA I (3) Comparative study of the major historical political, social, and cultural traditions of Chinese, Japanese, Indian, and Southeast Asian people from the earliest times until the coming of the European. May be taken for the arts and humanities distribution requirement. Usually offered every fall.

33.162 CIVILIZATION OF ASIA II (3) Cultural, special, economic, and political change experienced by the peoples of China, Japan, India, and Southeast Asia during and subsequent to the period of European colonialism. May be taken for the arts and humanities distribution requirement. Usually offered every spring.

33.164 ISLAMIC CIVILIZATION (3) Introduction to the origins and character of classical Islamic civilization and the dynamics of modernization of the Islamic societies of the Middle East. May be taken for the arts and humanities distribution requirement. Usually offered every term.

33.165 CIVILIZATIONS OF AFRICA (3) Comparative study of the major historical, political, social, and cultural traditions of Africa south of the Sahara. May be taken for the arts and humanities distribution requirement. Usually offered every term.

33.251 IDEOLOGY, TOTALITARIANISM, AND POSTINDUSTRIAL SOCIETY (3) The Soviet Revolution and the ideological, cultural, and sociopathic origins of fascism and National Socialism; Italy, Spain, Austria, and Germany between 1919 and 1945 contrasted with the changes in Western society since 1945. May be taken for the social sciences distribution requirement.

33.258 CONTEMPORARY RUSSIA (3) Introduction to Russia: contemporary political culture and its historical, economic, geographic, and social roots. May be taken for the social sciences distribution requirement. Usually offered every spring.

33.261 CONTEMPORARY EAST ASIA (3) Introduction to East Asia: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to People's Republic of China and Japan. May be taken for the social sciences distribution requirement. Usually offered every spring.

33.262 CONTEMPORARY SOUTHEAST ASIA (3) Introduction to Southeast Asia: contemporary political culture and its historical, economic, geographic, and social roots. May be taken for the social sciences distribution requirement.

33.263 CONTEMPORARY SOUTH ASIA (3) Introduction to South Asia: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to India, Bangladesh, and Pakistan. May be taken for the social sciences distribution requirement.

33.264 CONTEMPORARY MIDDLE EAST (3) Introduction to Middle East: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to Arab world. May be taken for the social sciences distribution requirements. Usually offered every fall.

33.265 CONTEMPORARY AFRICA (3) Introduction to Africa: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to Africa south of Sahara. May be taken for the social sciences distribution requirements. Usually offered every fall.

33.276 CONTEMPORARY LATIN AMERICA (3) Major political, social, and economic change in Latin America, its foundations, factors accelerating and impeding it, and prospects and trends. May be taken for the social sciences distribution requirement. Usually offered every term.

33.355 THE RELATIONS OF WESTERN EUROPEAN NATIONS (3) World War II diplomacy affecting Europe's postwar position and the origins and development of the cold war in Europe; French and West German foreign policy and East-West diplomacy relating to Germany from World War II to the contemporary period; European unity with emphasis on the European Community; U.S.-European relations and issues of European security. Usually offered every spring.

33.359 SOVIET UNION IN WORLD AFFAIRS (3) Analysis of recent and contemporary interstate relations in zone of Soviet influence and place of the U.S.S.R. in world affairs. Usually offered every spring.

33.366 ASIAN POWER RIVALRIES (3) International politics from Asian perspectives, with particular attention to complex relationships among China, Soviet Union, India, and Japan. Usually offered every fall.

33.379 SELECTED TOPICS IN REGIONAL INTERNATIONAL SYSTEMS (3) Issue oriented analysis of contemporary regional or interregional relations: Western Europe, Soviet Union, East Asia, Southeast

Asia, South Asia, Middle East, Africa, or Latin America. May be repeated for credit within the same term; topic must be different.

33.479 INTERDISCIPLINARY SEMINAR: SELECTED FOREIGN AREAS (3) Problem oriented interdisciplinary seminars relating to one or more of the following areas: Western Europe, U.S.S.R., East Asia, Southeast Asia, South Asia, Middle East, Africa, or Latin America. May be repeated for credit within the same term; topic must be different.

UNITED STATES AND COMPARATIVE FOREIGN POLICY ANALYSIS

33.280 POLICY ANALYSIS (3) Public policy formation and implementation, with attention to analysis, evaluation and forecasting in such policy areas as diplomacy, security, welfare, health, education, environment, and finance. Major focus on United States, with some comparative dimensions. May be taken for the social sciences distribution requirement. Usually offered every fall.

33.381 FOREIGN POLICIES OF THE GREAT POWERS (3) Analysis of the historical evolution and contemporary development of the foreign policies of the United States and the Soviet Union, including the role of China in the foreign policies of each. Emphasis is on the interaction of the policies and behavior of the major powers. Usually offered every fall.

33.382 THE ANALYSIS OF UNITED STATES FOREIGN POLICY (3) Approaches to the study of American foreign policy processes and decision making; the role of the President, the bureaucracy, the Congress, and public opinion. Applications of U.S.-U.S.S.R. relations. Usually offered every term.

33.384 AMERICAN DEFENSE AND SECURITY POLICY (3) United States national security policy formulation, including: organizational politics, NSC systems, State and Defense departments, the intelligence community, defense budgeting, weapons acquisition process, and executive-legislative relations. Usually offered every fall.

33.385 UNITED STATES FOREIGN ECONOMIC POLICY (3) Survey and examination of the major factors and issues in U.S. international economic relations in terms of trade-offs between political and economic priorities; emphasis on U.S. international trade, financial development, energy, and investment policy. Usually offered every term. *Prerequisite:* 19.100 or equivalent.

33.386 COMPARATIVE FOREIGN POLICY (3) Policy formation and implementation of selected nation-states, treated comparatively. Analysis of the impact of foreign policies of selected countries on development, international stability, and environment. Usually offered every spring.

33.389 SELECTED TOPICS IN POLICY ANALYSIS (3) Analysis of selected topics in public policy, with special attention to diplomatic, security, economic, or environmental policies. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 33.280 or permission of instructor.

33.489 SEMINAR IN POLICY ANALYSIS (3) Undergraduate research seminar focusing on selected issues in foreign policy analysis: U.S. policy and the Eastern Mediterranean, linkage politics in foreign policy formulation, foreign policy formulation in East Asia, Latin America, etc. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 33.280 or 33.386 or permission of instructor.

INTERNATIONAL COMMUNICATION

33.340 FOUNDATIONS OF INTERNATIONAL COMMUNICATION (3) Examination of the sociology, psychology, and anthropology which operates during transmission of ideas, perceptions, and feelings between and within cultures. Considers communications models, perception theories, cultural contact and technological change, public opinion, propaganda, and logic systems.

33.349 SELECTED TOPICS IN INTERNATIONAL COMMUNICATION (3) Detailed consideration of selected issues in the general field of international communication, research techniques in international communications, the role of the media in cross-cultural communication. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 33.340.

INTERNATIONAL LAW AND ORGANIZATIONS

33.321 INTERNATIONAL LAW (3) Analysis of institutionalized modes of international politics, with emphasis upon the nature and function of international law. Usually offered every term.

33.325 INTERNATIONAL ORGANIZATION (3) Analysis of institutionalized modes of international politics, with emphasis upon the nature and functions of international organization. Usually offered every term.

33.329 SELECTED TOPICS IN INTERNATIONAL LAW AND ORGANIZATION (3) Consideration of specific issues in international law and organization: space, the environment, the sea, and trade; the international institutions set up to deal with these issues; regional organizations and their structure and operations. May be repeated for credit within the same term; topic must be different.

INTERNATIONAL RELATIONS AND DIPLOMACY

33.100 POLITICAL CONCEPTS (3) Interaction of normative and empirical theory. Examination of concepts such as politics, power, authority, legitimacy, the state, nationalism, and conflict, as well as their applicability to international and comparative politics and in policy analysis. May be taken for the social sciences distribution requirement. Usually offered every term.

33.202 WORLD POLITICS (3) Analysis of international relations as a specific process. Examines conflict and cooperation in international relations by analyzing such processes as diplomacy, alliances, international law and organization, and other forms of interaction. May be taken for the social sciences distribution requirement. Usually offered every term.

33.301 THEORIES OF INTERNATIONAL POLITICS (3) Major trends in recent thinking about international relations, including systematic and behavioral modes of analysis. Examination of problems of explanation and theory building in social sciences with special reference to international studies. Usually offered every fall.

33.307 QUANTITATIVE APPROACHES TO INTERNATIONAL POLITICS (3) Introduction to quantitative measurement and statistical analysis in international relations research. Usually offered every term.

33.319 SELECTED TOPICS IN INTERNATIONAL POLITICS (3) Analysis of specific themes in international politics, crises of issues of contemporary concern, critical areas of diplomatic activity, e.g., southern Africa, Cyprus, arms limitation talks, and peace keeping efforts. May be repeated for credit within the same term; topic must be different.

33.409 SEMINAR IN CURRENT ISSUES IN INTERNATIONAL POLITICS (3) Research seminar dealing with current issues of importance in international affairs: the "new" world order, terrorism and national liberation movements, ideological issues in world politics, and discrete periods in world politics (Cold War, Kissinger, and post-Kissinger periods).

33.418 SEMINAR IN WORLD ORDER (3) Intensive dialogue on problems of securing meaningful world order, based upon insights from such fields as ethics, ecology, geography, political economy, sociology, physics, fiction and futurology. Reading, discussion, and guest speakers. See also courses in international economics and diplomatic history under the departments of economics and history, respectively. Usually offered alternate falls.

SPECIAL COURSES

33.390 INDEPENDENT READING COURSE IN INTERNATIONAL STUDIES (1-6)*

33.391 INTERNSHIP IN INTERNATIONAL AFFAIRS (1-12) Direct involvement in policy-making process through participation in government agency or nongovernmental organization. Credit varies depending upon nature of internship and number of hours involved. Usually offered every term.

33.490 INDEPENDENT STUDY PROJECT IN INTERNATIONAL STUDIES (1-6)*

33.491, 33.492, 33.493, 33.494 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES (3), (3), (3), (3)

Foreign Policy Semester Innovative approach to education which permits group of students, guided by team of professors, to devote their entire efforts and attention for one semester to specific theme of United States foreign policy formulation and implementation. Systematic study of foreign policy emphasizes qualitative analysis; employs quantitative methods as appropriate. All students actively participate in seminars, workshops, on-site observation, and individual and joint research projects, and meet with foreign policy makers and influencers from government, media, and other private sector and organizations. Internship optional. Usually offered every term. *Prerequisites:* junior or senior standing and permission of the coordinator of the semester.

International Development Semester Innovative approach to education which permits group of students, guided by team of professors, to devote their entire efforts and attention for one semester to the specific theme of development. Integrates and synthesizes knowledge from variety of fields and applies this multidisciplinary approach to the analysis of specific issues and problems in fields of

* See description under General Curriculum Information in this publication.

political, economic and social development. All students actively participate in special seminars and conferences, individual and team research projects, on-site observation and field investigations, simulation exercises, and computer-aided measurement and analysis of development data. Internship optional. Usually offered every term. *Prerequisites:* junior or senior standing and permission of the coordinator of the semester.

33.498 DEPARTMENTAL HONORS SENIOR YEAR (1-6) Usually offered every spring.

Graduate and Advanced Undergraduate Courses

WORLD CIVILIZATION, CROSS-NATIONAL, AND REGIONAL SYSTEMS

33.551 POLITICS AND SOCIETY IN WESTERN EUROPE SINCE 1945 (3) The political systems, values, and sociological changes in Western European society since 1945; an analysis of Europe in terms both of nations and regions as well as different levels of development and economic organization. Usually offered every fall.

33.552 TWENTIETH CENTURY POLITICAL IDEAS AND MOVEMENTS (3) Theory of mass psychology, crowds, and political sects; role of intellectuals including such thinkers as Mosca, Pareto, Le Bon, and Michels; Max Weber's theory of bureaucracy and charisma; communism and French intellectuals; National Socialism as charismatic-bureaucratic phenomenon. Transition, end of ideology, and changing roles of intellectuals in advanced societies. Usually offered alternate springs.

33.557 FOREIGN POLICY FORMULATION IN WEST EUROPEAN STATES (3) Analysis of foreign policy formulation in major Western European countries, including study of conditioning factors, instrumentalities, political parties, pressure groups and organizations, public media, and opinion. Usually offered every spring.

33.558 SOVIET POLITICAL SYSTEM (3) Study of the Soviet political system and its relationship to political culture and the formation of social values. Emphasis is on the Communist Party and the interdependence of political and social behavior. Usually offered every fall.

33.561 MODERN CHINA (3) Emergence of China as world power, with emphasis on economic, political, and social trends in People's Republic of China today. Usually offered alternate springs.

33.562 MODERN JAPAN Study of continuity and change in Japan's postwar society as contrasted with the prewar society. Usually offered alternate falls.

33.564 THE MODERN ARAB WORLD (3) Analysis of contemporary politics and international relations in Arab world. Usually offered every fall.

33.567, 33.568 INTERNATIONAL RELATIONS OF EAST ASIA I, II (3), (3) Analysis of recent historical and contemporary interstate relations in world affairs. Usually offered every term.

33.569 INTERNATIONAL RELATIONS OF SOUTHEAST ASIA (3) Analysis of recent and contemporary interstate relations in Southeast Asia and place of Southeast Asia in world affairs. Usually offered alternate springs.

33.570 INTERNATIONAL RELATIONS OF SOUTH ASIA (3) Analysis of recent and contemporary interstate relations in South Asia and place of South Asia in world affairs. Usually offered alternate falls.

33.571, 33.572 INTERNATIONAL RELATIONS OF THE MIDDLE EAST I, II (3), (3) Analysis of recent historical and contemporary interstate relations in Middle East and North Africa and place of Middle East in world affairs. Usually offered every term.

33.577, 33.578 INTERNATIONAL RELATIONS OF LATIN AMERICA I, II (3), (3) Analysis of recent and contemporary interstate relations in Latin America and place of Latin America in world affairs.

33.579 SELECTED REGIONAL AND COUNTRY STUDIES (3) Intensive analysis of selected topics in contemporary international relations with regional or area focus. May be repeated for credit within the same term; topic must be different. *Prerequisite:* appropriate regional course at 500- or 600-level or equivalent.

UNITED STATES AND COMPARATIVE FOREIGN POLICY ANALYSIS

33.581 SCHOOLS OF THOUGHT IN CONTEMPORARY UNITED STATES FOREIGN POLICY (3) Seminar examining disparate normative assumptions about United States foreign policy. A wide spectrum of viewpoints are critically examined and students are required to explore their own values as they relate to foreign policy. Usually offered every spring.

33.583 UNITED STATES IN WORLD AFFAIRS (3) Analysis of recent and contemporary interstate relations in areas of American influence and place of United States in world affairs. Usually offered every fall.

33.585 CONTEMPORARY UNITED STATES FOREIGN ECONOMIC POLICY II (3) In-depth examination of the major issues in contemporary U.S. foreign economic policy; intensive analysis of the economic and political factors underlying U.S. postures and actions toward international trade, financial development, energy, and monetary possessions. Usually offered every spring. *Prerequisite:* 33.385 or 33.685.

33.588 INTERNATIONAL CONFLICT AND CONFLICT RESOLUTION (3) Heavy emphasis on arms control: its strengths and weaknesses. Examination of the military strategy-policy relationship, deterrence theory, strategic posture and doctrines and terrorism. Usually offered alternate falls.

WORLD HUMAN NEEDS AND INTERNATIONAL DEVELOPMENT

33.534 WORLD HUMAN NEEDS AND INTERNATIONAL PLANNING (3) Interdisciplinary approach to world human needs; social, economic, political, and moral implications of growing chasm between rich and poor nations; world population growth, resources and environmental pollution; differences of opportunity for food and health; housing, education, employment, social security, migration, and brain-drain; implications of resentment and violence potentials; priority needs; problems and possibilities of international planning. Usually offered every fall.

33.535 WORLD HUMAN NEEDS AND INTERNATIONAL ADMINISTRATION (3) Consideration of problems of international service and development agencies in field of world human needs, including relief, economic assistance, and development. Presentations made by religious agencies, United Nations, World Bank, and U.S. government program administrators, and consideration of other possibilities for meeting future world human needs. Usually offered every spring.

33.536 SPECIAL STUDIES IN WORLD HUMAN NEEDS (3) Intensive analysis of selected topics in world human needs. Topics have included world food resources and policy, international administration, international planning, world population dynamics, disaster preparedness and relief, world housing, and world geography. May be repeated for credit within the same term; topic must be different.

INTERNATIONAL RELATIONS AND DIPLOMACY

33.504 MULTINATIONAL CORPORATIONS (3) Study of structure and functions of multinational corporations in global system and their developmental impact upon other actors. Usually offered every spring.

33.513 COMPUTER APPLICATIONS IN INTERNATIONAL RELATIONS RESEARCH (3) Focus on use of the Statistical Package for the Social Sciences (SPSS) and multivariate statistical methods in international relations research. Usually offered every spring. *Prerequisite:* 33.307 or 33.611.

33.514 SURVEY RESEARCH METHODOLOGY (3) Survey method as principal tool in comparative politics research; applicability strengths and limitations. Techniques and problems of data collection, data processing, and data analysis. Usually offered every fall. *Prerequisite:* a basic course in statistics is highly recommended.

33.517 INTERNATIONAL RELATIONS BETWEEN THE WARS (3) Diplomacy of 1919–1939 period with particular reference to Europe. Development and breakdown of French system, collective security, fascism, Nazism, Soviet Union, and role of U.S. in European affairs.

33.518 DIPLOMACY OF WORLD WAR II (3) Reviews the foreign policies of the Axis countries (Germany, Italy, and Japan) and the major Allied Powers (U.S., U.K., U.S.S.R., France, and China). Analyzes international conferences and agreements to the Potsdam Conference and organization of the U.N. Relates wartime diplomatic developments to current issues in international relations. Usually offered every fall.

33.519 SPECIAL STUDIES IN INTERNATIONAL POLITICS (3) Intensive analysis of selected topics in contemporary international relations. Topics have included population dynamics, war crimes, ethnicity and international politics, Chinese ideology, reform and revolution in Latin America, etc. For graduate students. These topics are applicable to a variety of comprehensive fields and specializations; please consult with the Office of Graduate Studies, SIS. May be repeated for credit within the same term; topic must be different. Usually offered every term.

33.590 INDEPENDENT READING COURSE IN INTERNATIONAL STUDIES (1-6)***Graduate Courses****WORLD CIVILIZATION, CROSS-NATIONAL, AND REGIONAL SYSTEMS**

33.655 INTERNATIONAL RELATIONS OF WESTERN EUROPE (3) World War II diplomacy affecting Europe's postwar position and the origins and development of the Cold War in Europe; European security; West German foreign policy and East-West diplomacy relating to Germany from World War II to the contemporary period; French foreign policy through the Gaullist period. Usually offered every fall.

33.656 CONTEMPORARY INTERNATIONAL RELATIONS OF WESTERN EUROPE (3) Theoretical approaches to the study of European integration; evolution of West European unity since World War II with emphasis upon the European Community's United States-West European relations from the 1960s and contemporary issues of European security. Usually offered every spring.

33.659 INTERNATIONAL RELATIONS OF THE SOVIET UNION (3) Analysis of recent and contemporary interstate relations in areas of Soviet influence and place of U.S.S.R. in world affairs. Usually offered every fall.

33.679 SEMINAR IN REGIONAL INTERNATIONAL SYSTEMS (3) Research seminar focusing on regional and country issues relating to world affairs: Politics of Dependency in Latin America, Brazil in World Politics, Iran in World Politics, and War and Peace in the Middle East. May be taken for credit within the same term; topic must be different.

33.760 COLLOQUIUM IN REGIONAL INTERNATIONAL SYSTEMS (3) Intensive dialogue among faculty members and doctoral students in regional international systems field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by the Office of Graduate Studies, SIS.

UNITED STATES AND COMPARATIVE FOREIGN POLICY ANALYSIS

33.682 UNITED STATES FOREIGN POLICY (3) Analysis of American foreign policy, diplomatic process, including role of President, Congress, Department of State, and other agencies in foreign policy making. Usually offered every spring.

33.684 NATIONAL SECURITY POLICY (3) Principal elements of U.S. national security policy, including policy making, implementation, and control; civilian-military, military-industrial, and executive-legislative relations; interaction of security policy of United States and other powers. Usually offered every fall.

33.685 ANALYSIS OF UNITED STATES FOREIGN ECONOMIC POLICY (3) Analysis of the elements and nature of the principal American international trade, financial, development, energy, and investment policies. Issues examined in the context of foreign and domestic economic and political considerations. Usually offered every fall. *Prerequisite:* 19.100, 19.311 or equivalent.

33.686 COMPARATIVE FOREIGN POLICY ANALYSIS (3) Psychological, political, societal, and systematic components of foreign policy processes and decision making examined comparatively. Usually offered every spring.

33.687 ORGANIZATIONAL ELEMENTS OF FOREIGN POLICY (3) Analysis of the role and impact of organizational dynamics and bureaucratic behavior on the formulation, substance, and conduct of U.S. foreign policy. Examination of the evolution of principal U.S. foreign policy institutions and proposals for organizational reform and rationalization. Usually offered every spring.

33.688 ADMINISTRATION OF INTERNATIONAL PROGRAMS (3) Comparative analysis of national and international administrative processes and problems, focusing on the administration of the foreign policies of United States and of selected United Nations programs. Usually offered every fall.

33.689 SEMINAR IN FOREIGN POLICY ANALYSIS (3) Graduate research seminar focusing on selected issues or approaches and methodologies: Soviet Scientists and Science Policy, Cognitive Mapping in International Relations, Social Indicators and Their Use in Foreign Policy Research. May be repeated for credit within the same term; topic must be different. *Prerequisite:* 33.681 or 33.685.

* See description under General Curriculum Information in this publication.

33.780 COLLOQUIUM ON UNITED STATES AND COMPARATIVE FOREIGN POLICY (3) Intensive dialogue among faculty members and doctoral students in U.S. and comparative foreign policy field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by Office of Graduate Studies, SIS. Preparatory for comprehensive examination. Usually offered every fall.

INTERNATIONAL COMMUNICATION

33.640 INTERNATIONAL COMMUNICATION (3) Concepts, theories, and problems of international communication in terms of individual group behavior as presented in social and behavioral sciences. Usually offered every fall.

33.641 PSYCHOLOGICAL AND CULTURAL BASES OF INTERNATIONAL POLITICS (3) Phenomena and problems of international political behavior in terms of underlying psychological and cultural forces. Theory of international politics from behavioral science point of view. Usually offered every spring. *Prerequisite:* 33.340 or 33.640.

33.642 CROSS-CULTURAL COMMUNICATION (3) Contribution of relevant social and behavioral sciences to study of intercultural and cross-cultural communication. Culture as communication and analysis of value-systems as essential in communication. Usually offered alternate springs. *Prerequisite:* 33.640 or equivalent.

33.643 COMMUNICATION AND POLITICAL DEVELOPMENT (3) Theories and models of communication and political development. Communication patterns and political socialization in modernization process. Usually offered every fall. *Prerequisite:* permission of instructor.

33.644 COMMUNICATION AND SOCIAL AND ECONOMIC DEVELOPMENT (3) Communication as instrument of social and economic development. Uses of communication for national integration, social change, and diffusion of innovation. Usually offered every spring. *Prerequisite:* permission of instructor.

33.740 COLLOQUIUM IN INTERNATIONAL COMMUNICATION (3) Intensive dialogue among faculty members and doctoral students in international communication field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by Office of Graduate Studies, SIS. Preparatory for comprehensive examinations. Usually offered every spring.

WORLD HUMAN NEEDS AND INTERNATIONAL DEVELOPMENT

33.637 INTERNATIONAL DEVELOPMENT (3) Overview of alternative theories and definitions of development as expressed in the major international institutions (aid agencies, cartels, multinational corporations) concerned with the transfer of resources. Considers the dilemmas of the "change-agent" in working for development and examines the major development issues. Usually offered every term.

COMPARATIVE POLITICS (OFFERED JOINTLY WITH THE SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION)

53.630 COMPARATIVE POLITICS AND POLICY ANALYSIS (3) An overview of comparative political analysis as it relates to the fields of development and international relations. The evolution of the field, current directions of major research, and variables in the policy process. Usually offered every fall.

53.631 DEVELOPMENTAL CONFLICTS AND POLITICAL CHANGE (3) A study of the causes and consequences of political and economic development. Begins with Marx and Weber. Examines political conflicts such as scarcity, marginality, and powerlessness. Analyzes interdependent sovereignty and cooperation, as well as the trade-off between equity and growth, using a comparative methodology. Usually offered every spring.

INTERNATIONAL LAW AND ORGANIZATIONS

33.621 INTERNATIONAL LAW AND THE LEGAL ORDER (3) Nature and functions of international law in interstate relations, with emphasis on recent trends in scholarship, as well as cases, documents, and other original materials. Usually offered every fall.

33.625 WORLD ORGANIZATION AND WORLD ORDER (3) Origins, purposes, principles, organization, activities, and circumstances of the League of Nations, United Nations and allied models of future world order. Theoretical aspects emphasized. Usually offered every spring.

33.729 RESEARCH SEMINAR IN INTERNATIONAL LAW AND ORGANIZATION (3) Research seminar organized according to need around a substantive problem focus, a technique focus, or a more general focus. Preparatory for comprehensive examination. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring. *Prerequisites:* 33.621 or 33.625.

INTERNATIONAL RELATIONS AND DIPLOMACY

33.601 FOCI OF ANALYSIS IN INTERNATIONAL RELATIONS (3) Problem identification, definition of boundaries of the field, development of normative and analytic goals, and establishment of priorities. Usually offered every term.

33.603 SYSTEMATIC INTERNATIONAL RELATIONS (3) Examination of alternative quantitative analytical perspectives, selection of appropriate methods and development of research plans. Usually offered every spring. *Prerequisite:* 33.611 or permission of instructor.

33.609 SEMINAR IN INTERNATIONAL RELATIONS (3) Organization may vary according to need around substantive focus, technique focus, or more general focus. *Prerequisites:* 33.601 and 33.603 or equivalent.

33.611 CONDUCT OF POLITICAL INQUIRY AND RESEARCH (3) Introduction to research design, quantitative measurement, and statistical analysis in international relations research. Usually offered every term.

33.710 COLLOQUIUM IN INTERNATIONAL RELATIONS (3) Intensive dialogue among faculty members and doctoral students in the international relations field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of field announced in advance by the Office of Graduate Students, SIS. Preparatory for comprehensive examination.

SPECIAL COURSES

33.690 INDEPENDENT STUDY PROJECT IN INTERNATIONAL STUDIES (1-6)*

33.691 INTERNSHIPS IN INTERNATIONAL AFFAIRS (1-12) Direct involvement in policy making process through participation in governmental agency or nongovernmental organization. Credit varies depending on nature of internship and number of hours involved. Usually offered every term. *Prerequisite:* permission of coordinator of internships, SIS.

33.797 MASTER'S THESIS SUPERVISION (1-6) Usually offered every term.

33.799 DOCTORAL DISSERTATION SUPERVISION (1-12)

Technology and Administration

DIRECTOR John M. Richardson, Jr.

FULL-TIME FACULTY

Professor L. H. Hattery, W. Kennevan (Emeritus), M. C. Sager, I. D. Welt

Associate Professor R. A. Bassler, D. D. Malone, J. M. Richardson, Jr. M. I. Rosenberg (Emeritus)

Assistant Professor M. A. Greene, D. A. Schilling

The Center for Technology and Administration embodies The American University's commitment to understanding and solving problems which arise out of the interrelationship between people, organizations, information, and technology. The discipline, *technology of management*, has evolved from the acceptance of the electronic digital computer with its associated communications capabilities, as well as from the emergence of a broad and substantial quantitative theory of the properties, structure, and flow of information. It approaches problems in all fields involving information transfer, transformation, and storage. It includes, but is not limited to, the use of computers in systems analysis, systems dynamics, statistics, computer assisted instruction, command and control systems, data systems, information storage and retrieval, simulation and modeling, and quantitative policy analysis.

* See description under General Curriculum Information in this publication.

Undergraduate Program in Technology of Management

ADMISSION TO THE PROGRAM Students are admitted to the undergraduate program after consultation with and with the approval of a faculty advisor in the Center for Technology and Administration.

Set 41.100, 41.101, 42.202, 42.300, 10.240, 10.241, 55.310, and 55.360.

Requirements

Required 10.201 or 55.471; 55.333 or 55.334 or 55.335; 55.331 or 55.337;
Options 55.431 or 55.432; 18 additional semester hours selected in consultation with the student's advisor from among the offerings of the Center for Technology and Administration at the 400- or 500-level.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Science in Technology of Management with a major in Technology of Management.

Master's Program in Technology of Management

TRACKS Computer Systems Applications, Operations Research, Scientific and Technical Information Systems, Management Information Systems; Science/Technology Policy and Administration, and Environmental Systems Management.

ADMISSION TO THE PROGRAM Candidates applying for admission to the Master of Science in Technology of Management program must have a bachelor's degree from an accredited college or university and an undergraduate grade-point average of 2.50 or better. Admission through registration as a nondegree student and the completion of four or more graduate level courses with a grade-point average of 3.5 or better, in the Center for Technology and Administration, may be granted to those students who do not meet minimum standards for admission.

Course Requirements

The M.S.T.M. degree requires completion of all *foundation requirements* or their equivalent and completion of 36 graduate semester hours in core requirements, field requirements, and thesis requirements.

Foundation Requirements Normally foundation requirements or their equivalent must be completed before taking graduate level courses in the Master of Science in Technology of Management program. No graduate credit is given for foundation courses. (a) *Operations Research*: 41.222, 42.300 or 42.400 (b) *All Other Fields (tracks)* 55.310; 55.333 or 55.334 or 55.335; 55.411 or 42.400 or 42.300.

Core Requirements (a) *Computer Systems Applications and Management Information Systems*: 55.511; 55.530. (b) *Scientific and Technical Information Systems*: 55.512; 55.530. (c) *Science/Technology Policy and Administration*: 55.511 or 55.513; 55.570. (d) *Operations Research*: 55.511 or 55.514; 55.542 or equivalent. (e) *Environmental Systems Management*; 55.511; 55.589.

Field Requirements (a) Candidates taking the *two field option* must complete four courses and the seminar in the *main field* and four courses in the *minor field*. The remaining elective courses must be approved by the candidate's advisor. (b) Candidates taking the *one field option* must complete six courses and the seminar in the *main field*; two additional courses must be taken in a related field; the remaining elective courses must be approved by the candidate's advisor. (c) Candidates taking the *special field option* must take four courses and the seminar in the *main field* and an approved sequence of four or more courses in the *special field* as designated by the department or school offering the field. Special fields can often be designed to meet the particular needs of students.

The technology and management course fields are: (a) *Computer Systems Applications*: 55.331, 55.532, 55.533, 55.534, 55.537, 55.630, 55.632, 55.633, 55.635, 55.637, 55.730 (required for main field). (b) *Operations Research*: 55.641, 55.642, 55.644, 55.645, 55.646, 55.647, 55.740 (required for main field). (c) *Management Information Systems*: 55.560, 55.561, 55.562, 55.563, 55.660, 55.661, 55.665, 55.760 (required for main field). (d) *Scientific and Technical*

Information Systems: 55.550, 55.650, 55.653, 55.654, 55.656, 55.750 (required for main field). (e) *Science/Technology Policy and Administration*: 55.571, 55.670, 55.671, 55.672, 55.673, 55.770 (required for main field). (f) *Environmental Systems Management*: (a) General Environmental Systems Management suboption: Required Courses—55.580, 55.582, 55.583, 55.589, 55.780. Optional Courses—55.583, 55.683, 55.685, 55.686, 55.687, 55.688. (b) Ocean Affairs suboption: Required Courses—55.581, 55.584, 55.586, 55.587, 55.780. Optional Courses—55.683, 55.685, 55.686, 55.687, 55.688. (c) Toxic and Hazardous Materials suboption: Required Courses—55.584, 55.680, 55.681, 55.682, 55.780. Optional Courses—55.680, 55.681, 55.682, 55.683, 55.685, 55.686, 55.687, 55.688.

With the approval of their advisor, students may also select electives from the numerous dial access reading courses which are available in the field of environmental systems management.

Special Opportunities

CTA has a relatively small cadre of full-time faculty. Because of this many of the advanced courses in the program are taught by members of the adjunct faculty who hold senior positions in the fields of environmental management, information science, and computer systems applications in the Washington area. Many students in the program are also actively involved in these fields. Consequently the presentation of material in the classroom is regularly leavened with the practical experiences of both faculty and student. In addition, this means that many of the projects conducted by students as part of the program can be directly job-related.

Examination

Students must successfully complete one comprehensive examination in the main field of concentration.

Thesis

Students must complete a thesis in the subject matter related to the main field of concentration or independent research projects totalling six semester hours, or at least one research oriented course at the 600-level plus the seminar in the main field of concentration.

DEGREE OBJECTIVE Students receive a degree of Master of Science in Technology of Management with a major in Technology of Management.

Courses of Instruction

Undergraduate Courses

55.310 INTRODUCTION TO DATA PROCESSING (3) Provides a working knowledge of the history and scope of data information processing and computer information science applications. An applied overview of computer systems components, introductory higher level language programming, systems analysis, and computer systems applications. Should precede courses in computer programming, management information systems, and analytical management science techniques. May be taken for the social sciences distribution requirement. Usually offered every term.

55.331 INTRODUCTION TO COMPUTER DESIGN (3) An overview of various elements comprising computer systems. Provides a broad introduction to computer architecture. Examines underlying mathematical and physical concepts inherent in any computer system. Develops both hardware and software aspects of computer systems, including interdependencies of input, output, arithmetic, logic, memory, and control functions of digital computers. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term. *Prerequisite*: 55.310.

55.333 COMPUTER PROGRAMMING: FORTRAN (3) Basic concepts of computer programming using FORTRAN, a programming language primarily, but not exclusively, applied to mathematical and scientific applications. Programs are written by the students and run on the computer. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every term.

55.334 COMPUTER PROGRAMMING: COBOL (3) Basic concepts of computer programming using COBOL, a programming language, primarily directed to the application of business and data processing problems. Programs are written by the students and run on the computer. Usually offered every fall and spring.

55.335 COMPUTER PROGRAMMING: PL/1 (3) Basic concepts of computer programming using PL/1, the newest of the "high level" programming languages. It has features that make it applicable for both business and mathematical scientific applications. Programs are written by the students and run on the computer. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall and every spring.

55.337 PROBLEM ANALYSIS (3) Develops the fundamental ideas involved in the reduction of problems to computable form. Students learn the elements of BASIC and the use of remote real-time terminals and construct and program simple algorithms for sorting, arithmetic and logical games, and management procedures such as PERT. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisite:* 55.310 (or may be taken concurrently).

55.360 MANAGEMENT AND THE COMPUTER (3) Develops the concept of the computer as a tool of management. Examines the present and future capabilities in effective management utilization and exploitations of computer techniques within a business enterprise. May be taken for the social sciences distribution requirement. Usually offered every fall and spring. *Prerequisite:* 55.310.

55.390 INDEPENDENT READING COURSE IN TECHNOLOGY AND ADMINISTRATION (1-6)*

55.411 INTRODUCTION TO MANAGEMENT MATHEMATICS (3) The emphasis is on the use of quantitative methods in decision making. Designed for advanced undergraduates, the objective is to provide the student with working knowledge of mathematical reasoning that is basic to the new and powerful analytical tools of management decision making. Usually offered every term.

55.430 COMPUTER SYSTEMS APPLICATIONS FOR MANAGEMENT (3) Provides thorough foundation in computer usage from several managerial viewpoints. Provides a strong business and public administration systems orientation. Examines uses of the computer as a management tool, which itself requires careful management. An opportunity to appreciate the computer's potential as well as its limitations. May be taken for the social sciences distribution requirement. Usually offered every fall and every spring. *Prerequisite:* upper division standing with majors related to business, management, public administration, etc., or permission of instructor.

55.431 DOCUMENTATION OF PROGRAMS AND SYSTEMS (3) Provides the basis and supporting rationale for complete, clear, and concise documentation needed by organizational and project managers, analysts, and programmers. Directed towards study and application of tools and techniques for use by technical and management people in establishing and evaluating documentation practices. Management commitment and organizational structure are examined. Usually offered every fall and every spring. *Prerequisites:* 55.310 and 55.333 or 55.334 or 55.335.

55.432 INTRODUCTION TO SIMULATION AND MODELING (3) Theory and practical applications of simulation approaches to the study of systems such as, but not limited to, economics, ecology, public administration, business, and transportation. Monte Carlo analysis including generation of random variables, use of appropriate statistical tools, and model validation are examined. Students participate in model building. May be taken for the natural and mathematical sciences distribution requirement. Usually offered every fall. *Prerequisites:* 55.310, 42.300 and competence in a high-level programming language.

55.433 ADVANCED FORTRAN TECHNIQUES (3) An examination of current methods for the successful implementation of FORTRAN systems using advanced programming philosophies. Usually offered every spring. *Prerequisite:* 55.333 or permission of the instructor.

55.434 ADVANCED COBOL TECHNIQUES (3) Application of current advanced programming techniques to the solution of COBOL programming problems. Usually offered every spring. *Prerequisite:* 55.334 or permission of the instructor.

55.435 ADVANCED PL/1 TECHNIQUES (3) Designed to fit the needs of the computer professional charged with responsibilities in design and implementation of information processing applications. The impact of recent programming philosophies and techniques with respect to PL/1 are examined. Usually offered every fall. *Prerequisite:* 55.335 or permission of the instructor.

55.436 COMPUTER OPERATING SYSTEMS MANAGEMENT (3) Covers fundamentals of operating systems management techniques directed towards optimizing computer systems resources. Communications with operating systems and relationships between users and systems in data processing

* See description under General Curriculum Information in this publication.

are discussed. Selected topics areas include job control languages, accessing methods, libraries, debugging, and multiprogramming. Usually offered every fall and every spring. *Prerequisites:* 55.310 and 55.333, 55.334 or 55.335 or permission of instructor.

55.438 MICROPROCESSORS AND COMPUTER PERIPHERAL DEVICES (3) Microprocessor hardware and software techniques are examined with emphasis on computer peripheral applications. Channels, communications media, coding techniques, and software needed for systems aspects of peripherals are studied. Current views of input-output devices, point-of-sale devices, voice input response, and OCR devices are among the many techniques covered. Usually offered every spring. *Prerequisite:* 55.331.

55.440 OPERATIONS RESEARCH CONCEPTS (3) The scientific method, problem definition, statistical decision theory, model building, implementation and control of solutions, and individual projects. May be taken for the natural and mathematical sciences distribution requirement. *Prerequisites:* 42.300 and 41.101.

55.450 INFORMATION STORAGE AND RETRIEVAL (3) Elementary introduction to the application of the computer in handling scientific, technical, and scholarly literature. The role of the modern information center in providing management with relevant and up-to-date information "back-up" for decision making is stressed. Designed for all students involved in information processing, not data-processing. May be taken for the social sciences distribution requirement.

55.460 APPLIED SYSTEMS DESIGN (3) Provides basic background in the fundamentals of systems analysis, design, implementation, and utilization. Usually offered every fall and every spring. *Prerequisite:* 55.360 or permission of the instructor.

55.471 FUNDAMENTALS OF TECHNOLOGY OF MANAGEMENT (3) Basic analysis of functions of managers who may become involved in dynamics of change brought about by advancing technology. Study of interface between administration and technology. May be taken for the social sciences distribution requirement. *Prerequisite:* 55.310.

55.490 INDEPENDENT STUDY PROJECT IN TECHNOLOGY AND ADMINISTRATION (1-6)*

55.491 INTERNSHIP (1-6) Various projects. *Prerequisite:* permission of appropriate program director.

Graduate and Advanced Undergraduate Courses

55.511 THE SYSTEMS APPROACH (3) Introduction to the use of a holistic approach for structuring and solving complex decision problems in the private and public sectors. In addition, the course applies system analytical concepts to the management and theory of organizations. Usually offered every term.

55.512 INTRODUCTION TO CYBERNETICS AND SYSTEMS SCIENCE (3) Introduction to the abstractions of cybernetics. Operational aspects of human intellect are translated into machine simulation and examined for validity of communication and control. The man-machine symbiosis is studied as a means to augment man's capability to solve complex problems. Mathematical explanations are kept at a minimum.

ADVANCED COURSES

55.513 CHANGE AND THE MANAGERIAL PROCESS (3) Effects of technological and scientific development on the operations of the public or private administrative establishment. Implications for the managerial unit of the information and cybernetic revolutions and modern technological instruments and methods for the performance of societal and administrative functions. Reciprocal effects of managerial requirements on the technological development.

55.514 OPERATIONS RESEARCH APPROACH (3) Concepts, applicability, limitations, and frontiers of operations research. Decision making, problem definition, model building, marginal analysis, and utility. This course provides material basic to further study of operations research. Usually offered every term. *Prerequisites:* 41.222 and 42.300 or 42.400.

55.515 HUMAN RELATIONS ASPECTS OF MANAGEMENT SYSTEMS (3) Expand awareness of human processes and develop leadership skills in communications and group activities. Obtain knowledge of

* See description under General Curriculum Information in this publication.

the impact of human factors in designing, implementing, and managing large complex systems. Usually offered every fall and every spring. *Prerequisite:* 55.511.

55.530 REAL-TIME SYSTEMS (3) Practical coverage of large-scale, on-line, real-time systems design, implementation, and management. Stresses management. Stresses management understanding of technical aspects of on-line systems. Attention directed to hardware and software capabilities, teleprocessing concepts, distributed systems, man-machine factors, queuing theory, simulation tools, systems planning and control, security, and privacy. Usually offered every term. *Prerequisites:* 55.310, 55.411 and 42.300 or 42.400.

55.531 COMPUTER DESIGN AND COMPARATIVE SYSTEMS (3) Develops an understanding of number systems, Boolean algebra, and the logical design and organization of the digital computer and its functional components. Emphasis is on the analysis and comparison of various design alternatives and in analyzing the major architectural features of current small, medium, and large-scale commercial computer technology. Usually offered every fall and every spring. *Prerequisite:* 55.530.

55.532 ADVANCED PROGRAMMING MANAGEMENT (3) A study of the software development process. Contemporary techniques and philosophies of software design and implementation are examined. Research projects encompass the topic areas of organizing personnel and the stylized techniques of design and implementation. An extensive review of the periodical literature is required. Usually offered every summer. *Prerequisites:* 55.310 and competence in FORTRAN, COBOL or PL/1.

55.533 CONCEPTS IN COMPUTER COMMUNICATION (3) Reviews the rapid growth of computer communication and surveys the current developments. Networks and related problems are examined in terms of existing and proposed networks, their design problems, and software aspects. Distributed systems are considered. Includes the distribution of intelligence through files, data bases, and peripherals. Usually offered every summer. *Prerequisite:* 55.310.

55.534 MINICOMPUTER APPLICATIONS FOR MANAGEMENT (3) Data processing management oriented study of the capabilities and limitations of minicomputers in business applications. Course explains when, where, and how minicomputers should be used to support modern systems. Presents a comparative analysis of the major architectural features of current minicomputers, including software, hardware, peripheral devices, and environmental support requirements. Usually offered every summer. *Prerequisites:* 55.310 or equivalent and competence in one programming language and permission.

55.537 COMPUTER LANGUAGES IN SIMULATION (3) Includes theory underlying simulation technology, statistical techniques for collecting data, techniques for drawing random samples from statistical distributions, building simulation models, verification and validity checking models, and the study of existing large-scale simulation models. Practical experience through student development of simulation models using SIMSCRIPT and GPSS computer simulation languages. Usually offered every spring. *Prerequisite:* 55.432, or 55.632, or 55.642.

55.540 OPERATIONS RESEARCH IN MANAGEMENT (3) Overview of general field of operations research and its role in the decision making process. Modeling techniques and applications of a variety of prototype problems are covered. Mathematics employed limited to elementary algebra and statistics, stresses the quantitative approach. Not to be taken if operations research is a comprehensive field. *Prerequisite:* 42.300 or 42.400.

55.542 PROBABILITY AND STATISTICS FOR MANAGEMENT DECISIONS (3) Basic probability and statistics. Sampling, hypothesis testing, regression, analysis and correlation, analysis of variance, and nonparametric tests. *Prerequisites:* 41.222 and 42.300 or 42.400.

55.550 SURVEY OF INFORMATION SCIENCE AND TECHNOLOGY (3) Introduction to communication practices in scientific and scholarly fields emphasizing role of mechanized methods including computer. Techniques of word processing are featured, such as information storage and retrieval, reprography and computerized photocomposition. Designed for both users of modern data banks and managers of information systems. *Prerequisite:* for other courses. Usually offered every term.

55.560 SYSTEMS DESIGN FOR MANAGEMENT (3) Opportunity to develop and defend specific management sciences techniques against both hypothetical and actual operations and problem areas. Use of case studies, group discussions, and projects. Develops firm understanding of relationships and dependence upon interdisciplinary approaches to problem recognition, definition, development of alternatives and ultimate selection of optimum solution. Usually offered every fall and every spring. *Prerequisites:* 55.511 and 55.530.

55.561 MANAGEMENT OF AUTOMATIC DATA PROCESSING SYSTEMS (3) Examination of unique problems, functions, and requirements of data processing management. Within role of this management, planning, installation, operation and organization of computer facility examined. Executive interaction stressed, specifically in decision making, planning, and evaluation functions. The course content is developed through lectures and reports. Usually offered every fall and every spring. *Prerequisite:* 55.530.

55.562 MANAGEMENT OF INSTITUTIONAL RECORDS SYSTEMS: CREATION (3) Nature and functions of records and record systems, in relation to totality of organization and administrative process. Reviews kinds and respective functions of institutional paper and paperwork, but gives primary emphasis to development and installation of a records management program. Usually offered every fall.

55.563 MANAGEMENT OF INSTITUTIONAL RECORDS SYSTEMS: MAINTENANCE AND RETENTION (3) Principles, methods, and techniques of records management in the maintenance and retention phases. This course covers a continuation of the material encompassed in 55.562. Usually offered every spring. *Prerequisite:* 55.562.

55.570 MANAGEMENT OF RESEARCH AND ENGINEERING (3) Basic course on management of research and engineering organization. Discussion of the full spectrum of elements in such an organization, utilization of resources, comparison of government and business, establishment of procedures and methodologies for effective and efficient operations. *Prerequisite:* permission of program director.

55.571 TECHNOLOGICAL FORECASTING AND ASSESSMENT (3) Review of principal methodologies of technological forecasting involving establishment of long range goals definable in technical terms, and consequent preferred means of achieving them; usefulness and limitations from the viewpoint of practitioner as well as manager. Relationship planning, technological transfer, and assessment. Case studies. *Prerequisite:* 55.411, 55.570 or permission of program director.

55.580 ENVIRONMENTAL ANALYSIS THROUGH ENVIRONMENTAL IMPACT STATEMENTS (3) Introduction to administrative and analytic processes involved in preparation and review of environmental impact statements. The multidisciplinary assessment called for in an EIS is discussed and practical applications carried out in class. Usually offered every fall. *Prerequisite:* 55.589.

55.581 ENGINEERING PRINCIPLES AND MARINE MANAGEMENT (3) Provides a general overview of ocean engineering. Concentration on basic oceanography, ships and offshore facilities, submersibles and habitats, pollution control, marine environmental instrumentation, coastal and shoreline engineering, ocean energy, marine mining, and fishery technology. Usually offered every spring. *Prerequisite:* 55.584.

55.582 ENVIRONMENTAL LAW AND ADMINISTRATION (3) Governmental management of air, water and land systemic complexes with reference to control laws and regulatory statutes at federal, state and local levels. Usually offered every spring. *Prerequisite:* 55.589.

55.583 ENERGY, TECHNOLOGY AND THE HUMAN ENVIRONMENT (3) Lectures are directed toward the technological issues which underlie present supply capabilities for most energy sources: domestic energy supply and demand ratios; environmental effects of energy supply and utilization; the federal government's energy organization. Instruction by radio (WAMU-FM). Usually offered every other semester.

55.584 WATER, TECHNOLOGY AND THE HUMAN ENVIRONMENT (3) Directed toward the technological issues surrounding water use. Multidisciplinary by necessity, because all aspects of human and biotic survival on this planet are inextricably woven together in water use, these lectures incorporate concepts from many academic areas, including ecology, technology, economics, law, and political dynamics. Instruction by radio (WAMU-FM). Usually offered every other semester.

55.586 COASTAL AND ESTUARINE ENVIRONMENTS (3) Review of physical, chemical, and biotic interrelationships in these special ecological zones; basic problems in management of these areas with respect to political and economic overtones. Usually offered every fall. *Prerequisite:* 55.584.

55.587 LAW OF THE SEA (3) Principles of ocean law to inform managers of types of legal issues with which they may be confronted in this aspect of ocean affairs management. Usually offered every fall. *Prerequisite:* 55.584.

55.588 DIAL ACCESS SERIES IN ENVIRONMENTAL SYSTEMS MANAGEMENT (3) These courses may be taken at student's convenience in language laboratory. Films and tapes available there. Study guides obtained from the Environmental Systems Management office. Students are required to

schedule three oral interviews with the instructor during the semester. May be repeated for credit within the same term; topic must be different. Usually offered every term.

Air Pollution Problems Health effects on human and other biotic systems; laws and control measures. Usually offered every term.

Practical Scientific and Technical Writing Basic principles for preparation of all types of materials used in working world: speeches, progress reports, executive summaries, and other programmed learning materials. Usually offered every term.

Parasitic Disease: Socio-Economic Effect on Developing Nations Analysis of parasitic organisms and effects of diseases they produce on human, natural, and technological environments. Usually offered every term.

Human Biology Discussion of the systems of the human body; cell structure; nutrition; embryology. Usually offered every term.

Malnutrition, Mental Retardation, Public Administration Economic, political, genetic, and environmental issues fundamental to understanding of societal issues in relation to mental retardation. Usually offered every term.

Ecology of Comparative Biotic Systems Anatomy and physiology of biota and their relationships to natural and technological environments. Usually offered every term.

Pollution Problems in Environmental Management General overview of issues fundamental to environmental problems of land, air, and water. Usually offered every term.

Housing Problems in Environmental Systems Management Professional presentations on social, economic, and technological situation in housing management area and its environmental impact. Usually offered every term.

55.589 ECOLOGY AND THE HUMAN ENVIRONMENT (3) Fundamental information on ecology and many related topics—health and drugs; food additives; nuclear and fossil energy; pesticides and food; the politics of pollution. Instruction by radio. Usually offered every term.

55.590 INDEPENDENT READING COURSE IN TECHNOLOGY AND ADMINISTRATION (1-6)*

GRADUATE COURSES

55.630 COMPUTER APPLICATIONS FOR PUBLIC MANAGERS (3) An examination of the relationship of computers to public administration functions. Principal thrust toward applications. Includes current and future computer technology and its impact on managers in the public sector. Issues examined include privacy, security, human factors, resource management, budgeting and cost control, and computer resource selection. Usually offered every term.

55.632 SIMULATION AND MODELING (3) Design and implementation of simulation models for systems design and analysis. Emphasis on discrete stochastic systems and real-world business and government problems including resource allocation, queueing, inventory control, and industrial production. Overview of principal simulation languages and their applicability to problem solving. Usually offered every fall and every spring. *Prerequisites:* 55.530 and 42.300 or 42.400 and competence in one programming language.

55.633 PROGRAMMING SYSTEMS AND LANGUAGE (3) Examination of basic attributes of major classes of programming languages and systems. Characteristics that describe basic differences between types of languages emphasized. Roles of various operating systems briefly examined; as well as problems of operating systems design, and implementation. Usually offered every term. *Prerequisites:* 55.333, or 55.334 or 55.335 and 55.530.

55.635 WORKSHOPS IN COMPUTER SYSTEMS APPLICATIONS (3) Coverage of current topics in computer systems applications. Typical topics are: Data Base Management Systems, Distributed Systems, Evaluation and Selection of Computer Systems, Privacy and Security, and Performance Evaluation. May be repeated for credit within the same term; topic must be different. Usually offered every fall and every spring. *Prerequisites:* 55.511 and 55.530.

55.637 OPERATING SYSTEMS (3) Examines operating systems concepts for management computer systems including resource allocation, data management, communications management, and

performance evaluation subsystems. Covers interactions of operating system's constituent subsystems and popular methods of implementation. Structures a general operating system encompassing classical methods and several popular operating systems. Extensive research in the literature required. Usually offered every term. *Prerequisite*: 55.633.

55.640 SYSTEMS ANALYSIS/OPERATIONS RESEARCH IN PUBLIC ADMINISTRATION (3) Introduction to systems analysis/operations research. Solution of decision making problems at operations and policy making levels of international, national, and local governing bodies, using the scientific method. Evaluation of particular solutions. Not to be taken as a field course in the operations research master's comprehensive field. Usually offered every spring.

55.641 METHODS OF OPERATIONS RESEARCH I (3) Mathematical techniques in operations research. Part I. Linear and nonlinear programming, game theory, and inventory theory. Usually offered every fall. *Prerequisites*: 55.514 and 55.542.

55.642 METHODS OF OPERATIONS RESEARCH II (3) Mathematical techniques of operations research. Part II. Role of selected probability distributions in OR, queuing theory and applications, Markov processes, dynamic programming and extensions and integrating Markov processes, and selected problems in simulations. Usually offered every spring. *Prerequisite or parallel*: 55.641.

55.644 WORKSHOP IN OPERATIONS RESEARCH: A PRACTICUM (3) Individual and/or group projects involving actual problems. An opportunity for students to practice operations research either on problems of their own choosing or problems presented to them by the instructor. Guided experience in problem formulation, data collection, model building as appropriate, and in making final recommendations. *Prerequisite*: permission of the program director or the instructor.

55.645 WORKSHOP IN OPERATIONS RESEARCH: ADVANCED METHODOLOGY (3) Designed to (a) cover some topics not taken up in 55.642 (b) go into selected topics already covered more intensively and (c) to give students an opportunity to select one or two topics for special treatment. *Prerequisite or parallel*: 55.642.

55.646 COST-BENEFIT ANALYSIS (3) Examination of the techniques used to evaluate nonmarket oriented goods and services. *Prerequisites*: 55.542 and 41.222.

55.647 PROJECT MANAGEMENT (3) An introduction to the technology of project planning and management with special emphasis on large-scale projects and programs. Sources of information concerning funding organizations. Planning and scheduling techniques including PERT, Gantt charts, LOB and DELTA charts. Special management problems associated with scientific and technical projects. *Prerequisites*: permission; 55.514 recommended.

55.650 NATURAL LANGUAGE DATA PROCESSING (3) Computational methods for extracting indices and abstracts from natural language texts, including survey of such methods for communicating technical information. Applications of information theory and modern linguistics. Computer procedures for natural language editing, parsing, information selection and storage, vocabulary control, and retrieval. Designed for scientific and technical information majors. Usually offered every term. *Prerequisite*: 55.550.

55.652 ON LINE INTERACTIVE SYSTEMS (3) Specifically concerns bibliographically-based information systems, not ADPS. Equipment available, file design and organization, searching philosophy and procedures, factors affecting performance criteria and operating experiences are discussed, instruction and training of users and human factors are considered. Document delivery, cost performance and future requirements are stressed. Usually offered every term.

55.653 CONCEPTS OF ABSTRACTING AND INDEXING (3) Practical introduction to the abstracting art and survey of the abstracting and indexing area of information handling. Classification and indexing theories and systems, involving both manual and computerized approaches. Topics covered include keywords, thesaurus-building and use, universal decimal classification system and modern data banks. For information services management. Usually offered every term. *Prerequisite*: 55.550.

55.654 COMPUTERS AND MICROGRAPHICS (3) Review of modern micrographic systems for information storage and retrieval. Indexing and classification (theory, concepts, and techniques), search aids and automated retrieval. Computer output microfilming. Ancillary technologies. Micrographic and computer standards, systems specifications and requirement matching. User needs, economics, component selection, system design, and marketing are discussed. Future projection of industry. Usually offered every term. *Prerequisite*: 55.550 or permission of the instructor.

55.656 PUBLICATION TECHNIQUES (3) The economics of scholarly publication with emphasis on

the central role of the computer in reducing time-lag, facilitating up-date and cutting costs. The symbiotic relationship between computer-aided photocomposition (including COM (computer-output to microfilm)), and information storage and retrieval services is emphasized. For managers of publications. *Prerequisite:* 55.550.

55.657 CHEMICAL NOTATIONS SYSTEMS (3) Specifically designed for chemists and others interested in the development and management of information systems involving chemical structures. Encoding of such structures so that they can be handled by computerized systems is stressed. Existing information systems are evaluated, including those in the drug, pesticide, and environmental pollution areas. Usually offered every fall. *Prerequisites:* 55.550 and background in organic chemistry.

55.660 MANAGEMENT INFORMATION AND REPORTING SYSTEMS (3) Provides an understanding of the complexity of an integrated information system and its components. Covers system design, development, application, utilization, and evaluation. Various philosophies concerning the manner and degree of depth and breadth of the integrated management information system approach reviewed. Usually offered every fall and every spring. Usually offered alternate summers. *Prerequisite:* 55.560.

55.661 TELECOMMUNICATIONS AND MANAGEMENT INFORMATION SYSTEMS (3) To develop understanding and perspective in the relationships of data communications and management information systems. To determine current state-of-the-art and probable future developments in data communications systems. Usually offered every fall and every spring. *Prerequisite:* 55.530 or permission of the instructor.

55.665 WORKSHOP IN MANAGEMENT INFORMATION SYSTEMS (3) Advanced management information systems applications with emphasis of special projects and case studies. Usually offered every fall and every spring. *Prerequisite:* 55.660.

55.670 THE POLITICS AND ECONOMICS OF RESEARCH AND DEVELOPMENT (3) Magnitude, characteristics, and politico-economic significance of the research and development economy of the U.S. and, comparatively, of other countries. Structure and nature of the U.S. research industry. Government-business defense economy. Governmental nonmilitary research. Business and industrial research. Trends and forecasts. National resources allocation, and other political and economic problems. *Prerequisite:* permission of the instructor.

55.671 RESEARCH AND DEVELOPMENT IN THE TOTAL ORGANIZATION (3) Criteria for top management; (a) capabilities of scientific, technological, and social science research; (b) utilization for needs of the specific organization; (c) definition of research and development requirements, determination of budget; (d) evaluation of success and contribution to organizational objectives; (e) conversion of research and development results into governmental or business applications, products or processes. *Prerequisite:* 55.570.

55.672 SCIENTIFIC AND ENGINEERING MANPOWER (3) In-depth study of scientific and engineering manpower stressing role of individual in the research and development environment and his interface with the total resource of which he is a part. Impact of the innovative forces at work. For advanced graduate students. *Prerequisites:* 55.570 and at least one other research and development course.

55.673 PLANNING AND CONTROL OF RESEARCH AND DEVELOPMENT OPERATIONS (3) In-depth study of role of today's research and development manager. Review of operational policies and goals. Forecasting, planning, and programming techniques and analysis methodology. Exercise of "value judgements." Intended for the advanced graduate student. *Prerequisites:* 55.570 and at least one other research and development course.

55.680 INTRODUCTION TO TOXIC MATERIALS (3) Examines and analyzes past and present biopolitical decisions in the context of specific resource and policy impact. Biopolitical resource management decisions with indirect and direct wildlife implications as related to toxic and hazardous materials considered. Both actual and hypothetical decision processes scrutinized in terms of predictability and consequence. *Prerequisite:* 55.584.

55.681 PESTICIDE DEGRADATION IN THE ENVIRONMENT (3) Metabolism of pesticides and other hazardous materials is reviewed. The type of reaction, degradation by class, effects of ultraviolet and sunlight, and general differences and similarities between metabolism of plants and animals is discussed. Usually offered every fall. *Prerequisite:* 55.584.

55.682 FEDERAL REGULATIONS FOR TOXIC MATERIALS (3) To describe (1) values and hazards of agricultural chemicals and other environmental pollutants; (2) integrated crop management. To discuss and relate statutes, regulations, laws, and environmental quality. Usually offered every spring. *Prerequisite:* 55.584.

55.683 POLLUTION ABATEMENT POTENTIALS (3) In-depth study of three major contributors to environmental systemic pollution: agriculture, industry, and municipal wastes, with emphasis on reroutes and recycling. *Prerequisites:* two courses in environmental systems management.

55.685 WORKSHOP IN ENVIRONMENTAL SYSTEMS MANAGEMENT (3) Topics scheduled as warranted by current interest, faculty availability, and composition of student body. Focus on individual environmental problems and may involve field investigations. Rotating topics include Water Pollution, Marine Systems Management, Environmental Modeling, Urban Environmental Planning, Environmental Economics. May be repeated for credit within the same term; topic must be different. Usually offered every spring and every summer. *Prerequisite:* two courses in environmental systems management.

55.686 CONSERVATION AND ENVIRONMENTAL MANAGEMENT: RESOURCE RECOVERY (3) Preservation of natural ecosystemic balance in limnological, marine, and terrestrial environments through public administration at federal, state, and local levels; through public education and through monitoring systems such as tagging of biotic species; radiation devices; weather regulation, etc. Usually offered every fall. *Prerequisite:* three courses in environmental systems management.

55.687 CONSERVATION AND ENVIRONMENTAL MANAGEMENT: TOXIC SUBSTANCES (3) Assessment of toxicological and ecological implications of toxic substances, aquatic contaminants, and restricted use pesticides. Registration and regulation of pesticides, water pollutants, and toxic substances, environmental impact assessment, biological interactions with physical and chemical factors, analyses of integrated pest control, pollution abatement, fish and wildlife management and, conservation practices are emphasized. Usually offered alternate falls. *Prerequisite:* three courses in environmental systems management.

55.688 CONSERVATION AND ENVIRONMENTAL MANAGEMENT: PREDATOR MANAGEMENT (3) Deals with theories and policies involved in management of wildlife: grizzly bears, coyotes, wolves, and other animals commonly termed predators, by examining legal implications and differences involved in accommodating private and/or interest groups and government in establishing programs concerning control, as well as conservation of such animals. Usually offered alternate falls. *Prerequisite:* three courses in environmental systems management.

55.690 INDEPENDENT STUDY PROJECT IN TECHNOLOGY AND ADMINISTRATION (1-6)*

55.730 SEMINAR IN COMPUTER SYSTEMS APPLICATIONS (3) A synthesis of all aspects of computer systems applications. Involves an intensive review of the literature of the field. Students are expected to participate actively in seminar discussions and to produce several reading and research products. Required of all students in the Computer Systems Applications track. Usually offered every fall and every spring. *Prerequisite:* permission of the program director.

55.740 SEMINAR IN OPERATIONS RESEARCH (3) Critical review of literature and practice of operations research. Special attention is given to problems associated with implementation of operations research techniques and perspectives in private and public sector problem solving. Students are responsible for weekly literature abstracts and a term project or paper. Final course required for all students in the operations research tract. Usually offered every fall and every spring. *Prerequisite:* permission of program director.

55.750 SEMINAR IN SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS (3) The last course in the Scientific and Technical Information Systems Program and required of all students in that track. Students are required to present research reports before the class orally and then to write them up as if for publication in scholarly journals. Reviews of the recent literature are also required. May be repeated for credit, but not within the same term; topic must be different. *Prerequisite:* permission of the program director.

55.760 SEMINAR IN MANAGEMENT INFORMATION SYSTEMS (3) To improve understanding and perspective in the theory and substance of management information systems. To extend critical reading in the literature of the field. To improve understanding and skills in research methodology. Usually offered every fall and every spring. *Prerequisite:* permission of the program director.

55.770 SEMINAR IN SCIENCE/TECHNOLOGY POLICY AND ADMINISTRATION (MASTER'S) (3) For course content, see 55.673. Offered for students whose program requires a seminar in lieu of a thesis for a master's degree. *Prerequisite:* 55.570, at least one other research and development course, and permission of program director.

* See description under General Curriculum Information in this publication.

55.775 SEMINAR IN SCIENCE/TECHNOLOGY POLICY AND ADMINISTRATION (DOCTORAL) (3) Critical review of literature pertinent to modern research and development management, intended to develop within research and development executive a clear grasp of applicability of current knowledge of problem solving. Intended for very advanced graduate students. *Prerequisite:* permission of program director.

55.780 SEMINAR IN ENVIRONMENTAL SYSTEMS MANAGEMENT (3) Specific industries, geographic locations, and interferent materials analyzed in depth in relation to their particular production-pollution contribution. Special topics change as warranted by current interests, faculty availability, and composition of student body. Usually offered every term. *Prerequisites:* four courses in environmental systems management and permission of program director.



Special University Programs for Study and Research

Faculty of Community Studies

DIRECTOR Rhoda G. Welt

Director, Latino Institute Armando Rendon

FULL-TIME FACULTY

Associate Professor G. R. Weaver

Assistant Professor C. K. Brooks, R. Ralph, A. Rendon

The Faculty of Community Studies offers a 10-course undergraduate Certificate in Community Development and a 16-course Associate in General Studies degree. The program draws together the resources of an urban university and the community to provide developmental courses in basic academic skills and community related courses. All courses are fully accredited, transferable, and open to all University students.

The curriculum is designed to serve the educational needs of adults who seek professional or personal advancement through full or part-time study, credit or noncredit. Academic diagnostic and counseling services are available to assist the student in planning his academic program. The required developmental courses are designed to meet the needs of students who may have been out of school for a number of years while the community-related courses bring together the experiences of the inner-city student with traditional academic disciplines. Areas of concentration include community development, day care administration, business management, and communication. Students taking community studies courses are subject to the same academic standards to which all American University students are held.

PRIDE/AMERICAN UNIVERSITY INSTITUTE The institute provides scholarships for students enrolled in the Community Studies program who meet the following criteria: clearly defined academic need, well-established financial need, high school graduation, or one year's absence from high school, 18 years of age, and at least one year's residency in the Washington metropolitan area.

LATINO INSTITUTE The Latino Institute confronts the problems of Spanish-speaking Americans in higher education, taking into consideration cultural and language differences. All other criteria for admission are the same as for the Pride/American University Institute which awards the scholarships.

CERTIFICATE IN COMMUNITY DEVELOPMENT The Certificate in Community Development includes nine required courses and one elective in the community studies curriculum. Required courses may be waived by examination or permission of advisor.

ASSOCIATE DEGREE IN GENERAL STUDIES Students transfer courses completed in the Certificate program to their associate degree program and continue until they have completed a total of

sixteen courses. Students may either select general courses or concentrate in the areas of Community Development, Day Care Administration, Business Management, or Communication. All courses must be taken within the community studies curriculum unless students are exempted by their academic advisor.

Undergraduate Program in Community Studies

TRACKS Community Development, Day Care Administration, Business Management, and Communication.

ADMISSION TO THE PROGRAM Students must be approved by the department for formal admission to the program.

Set Requirements (1) *All Tracks*: 71.100, 71.101, 71.102, 71.105, 71.106, 71.108, 71.109, and one of the following 71.110, 71.112 or 71.114. (2) *Community Development*: 71.115, 71.221, 71.222, 71.223, 71.230, and 71.231. (3) *Day Care Administration*: 71.115, 71.232, 71.440, 71.441, 71.442, and 71.443. (4) *Business Management*: 71.113, 71.210, 71.212, and 71.213. (5) *Communication*: 71.103, 71.104, 71.224, and 71.225.

Required Options (1) *All tracks*: one of the following 71.111, 71.113, and 71.115. (2) *Community Development*: one of the following: 71.201, 71.119. (3) *Day Care Administration*: none. (4) *Business Management*: none. (5) *Communication*: none.

DEGREE OBJECTIVE Upon completion of 10 courses, students receive a Certificate in General Studies. Upon completion of 16 courses, students receive a degree of Associate in General Studies with a major in General Studies.

Courses of Instruction

Undergraduate Courses

71.100 LANGUAGE SKILLS (3) Provides students with basic language arts skills such as reading, sentence structure, vocabulary building, spelling, and usage. Instruction individual and intensive. Students may register for the course on a pass-fail basis. Usually offered every term.

71.101 COMMUNICATIONS I (3) Diagnoses the student's problems in written expression; improves his skills in critical reading and expository writing; introduces language psychology. Readings include patterned essays, stories, and poems. Students write a number of essays. Fulfills University English requirement 23.100. Usually offered every term.

71.102 COMMUNICATIONS II (3) Follows 71.101, which is its prerequisite. Continues improvement of reading and writing skills along with application of language psychology to inner city experiences. Readings include a novel and shorter works. Writing assignments include a research paper, a number of essays, and some creative writing. Completes the University's English requirement. Usually offered every term. *Prerequisite*: 71.101.

71.103 THE PHILOSOPHY OF COMMUNICATION: WRITING (3) Affords students the opportunity to develop their individual writing styles and their philosophy of expression.

71.104 THE PHILOSOPHY OF COMMUNICATION: CRITICAL READING AND THINKING (3) Involves awareness of what really happens between an author and his reader in the reading process. Students do close analysis of a number of essays and several books.

71.105 MATHEMATICS SKILLS (3) Develops and improves basic mathematical skills; includes such topics as basic operations with rational numbers and decimals, exponents, percentages, elementary theory of sets, and first degree equations in one variable. Usually offered every term.

71.106 INTRODUCTION TO ACADEMIC DISCIPLINE (3) Equips the student with the habits and skills necessary to achieve success in academic course work and independent study. Language skills are essential to this process and therefore are stressed as well as reading and research techniques. Usually offered every term.

71.108 INTRODUCTION TO THE SOCIAL SCIENCES (3) Introduces students to social sciences and their application and approach to specific problems. Issue oriented, interdisciplinary course involving psychology, economics, and sociology. Usually offered every term.

- 71.109 STUDY SKILLS/ORIENTATION (3)** Orients students to the University and fosters study skills needed by nontraditional students in an academic setting. Note-taking skills, problem-solving techniques, and term paper writing are stressed. Students are introduced to people, places and events on campus. Usually offered every term.
- 71.110 FABRIC OF SOCIAL STRUCTURE: PSYCHOLOGY I (3)** Introductory psychology, with cross-cultural emphasis using experience of the students. Social and abnormal psychology, development theory, and psychology of the Black experience. Usually offered alternate falls.
- 71.111 FABRIC OF SOCIAL STRUCTURE: PSYCHOLOGY II (3)** Familiarizes students with basic concepts of abnormal and social psychology. Relates psychology to the inner-city experience. Usually offered alternate falls and alternate summers. *Prerequisite:* 71.110.
- 71.112 FABRIC OF SOCIAL STRUCTURE: ECONOMICS I (3)** Stresses basic economic theory including supply and demand, scarcity, elasticity and monetary, fiscal and incomes policies. Usually offered alternate falls and alternate summers.
- 71.113 FABRIC OF SOCIAL STRUCTURE: ECONOMICS II (3)** Reviews basic economic theory, marginal analysis (theory of the firm), and concentration upon several current economic problem areas with theoretical implications and applications. Usually offered alternate falls and alternate summers. *Prerequisite:* 71.112.
- 71.114 FABRIC OF SOCIAL STRUCTURE: SOCIOLOGY I (3)** Concentrates upon introductory survey of sociology focusing on societal institutions that serve or fail to serve the central city. Usually offered alternate falls and alternate summers.
- 71.115 FABRIC OF SOCIAL STRUCTURE: SOCIOLOGY II (3)** Examines specific social issues of importance in inner-city experience. Usually offered alternate falls and alternate summers. *Prerequisite:* 71.114.
- 71.119 THE LATINO IN AMERICAN THOUGHT AND CULTURE (3)** Emphasis current experience and trends of the Latino (persons of Spanish heritage) in the United States with focus on developing insights and understanding the Latino's role in local and national affairs. Probes such issues as cultural identity, politics, economic development, and future of Latino peoples. Usually offered every spring.
- 71.201 BLACK CULTURAL HERITAGE (3)** Acquaints student with American roots in Africa; shows how African culture has affected the Americans. Emphasizes historical, musical, literary, artistic, and scientific contributions of Black Americans. Requires reading of African and American works. Usually offered every term.
- 71.202 SOCIAL DYNAMICS (3)** Stresses sociology of inner-city communities with reference to social movements and institutions, urban problems, law enforcement, and community development.
- 71.210 ACCOUNTING PRINCIPLES I (2)** Introduces basic techniques of record keeping and accounting. Usually offered alternate springs.
- 71.211 SALESMANSHIP (3)** Examines techniques of salesmanship and marketing as they relate to inner-city economic development and creation of a relevant and effective sales force.
- 71.212 ACCOUNTING PRINCIPLES II (2)** Stresses those aspects of accounting that should be especially useful in the central city. Usually offered alternate springs. *Prerequisite:* 71.210.
- 71.213 ACCOUNTING PRINCIPLES III (3)** Continuation of course 71.212. Usually offered alternate falls. *Prerequisite:* 71.212.
- 71.220 THE EDUCATIONAL INSTITUTION (3)** Makes students aware of existing structures of education in public and private elementary, secondary, and university institutions in urban areas. Emphasis is on minority education.
- 71.221 LAW AND THE COMMUNITY (3)** Emphasizes law as it relates to inner-city residents and introduces students to the police department as a social institution. Usually offered every fall.
- 71.222 COMMUNITY ORGANIZATION (3)** Acquaints students with the principles and techniques of community organization. Stresses practical applications as they relate to minority communities. Usually offered every term.
- 71.223 POLITICS AND SOCIETY (3)** Introduces students to political processes and to their relationship with conflict and cross-cultural interactions. Usually offered every spring.

71.224 DEVELOPMENT OF EFFECTIVE ORAL COMMUNICATION (3) Provides intensive skill development in oral communication in order to improve quality and effectiveness of spoken language. Includes speeches on selected topics of contemporary interest. Usually offered every fall.

71.225 DEVELOPMENT OF EFFECTIVE ORAL COMMUNICATION II (3) Provides opportunities for students to focus upon issues of contemporary interest. Emphasizes the use of appropriate levels of language, logical organization of ideas, and the competent use of speech. Deals with the oral language problems of minorities. Usually offered every spring.

71.230 CONSUMER EDUCATION (3) Provides basic knowledge of buying, selling and consumer principles. Stresses practical application.

71.231 LAY ADVOCACY (3) Makes students aware of their rights under the Constitution and enables them to use law as a tool. Designed to meet general legal needs of inner-city residents. Usually offered every fall.

71.232 PRINCIPLES OF COUNSELING (3) Considers basic theories of counseling and development of basic counseling skills for both laymen and professionals. Geared toward methods of counseling inner-city residents. Usually offered every fall and every spring.

71.233 TECHNIQUES OF MANAGEMENT (3) Examines strategies of management in relation to community organizations.

71.390 INDEPENDENT READING COURSE IN COMMUNITY STUDIES (1-6)*

71.440 DAY CARE ADMINISTRATION (3) Introduces students to establishment and implementation of successful day care center.

71.441 CHILD PSYCHOLOGY: DAY CARE APPLICATION (3) Provides insight into development with emphasis on cognitive and social learning. Designed for child care workers.

71.442 EDUCATION IN DAY CARE SCHOOLS (3) Explores early childhood education at successful day care centers.

71.443 DAY CARE HEALTH PROGRAM (3) Examines those aspects of health necessary for successful administration of day care program. Stresses performance of personnel in terms of health.

71.490 INDEPENDENT STUDY PROJECT IN COMMUNITY STUDIES (1-6)*

Cooperative Education Program

ACTING DIRECTOR Patricia T. van der Vorm

Coordinators Toney Grant, April K. Nichols, Tobie van der Vorm

FULL-TIME FACULTY

Full-time faculty from several University departments serve as faculty coordinators for the Cooperative Education Program to guide and evaluate the experiential learning of co-op students.

In order to broaden both liberal education and professional training, the Cooperative Education Program provides students with guided field experience in jobs related to their general education and/or specific career goals. Participants may include one or more periods of work experience (usually full-time and paid) in their programs of study and earn degree credit for demonstrated experiential learning. Co-op jobs may be with private business, industry, local, state or federal government, or community and social service organizations. Experiential education allows students to test previously acquired skills and academic learning in the laboratory of the world of work; it also provides for entirely new learning opportunities. Co-op experience enables students to explore career possibilities, make career decisions, and prepare for entry into the job market. Regardless of the student's specific objectives for co-op experience, personal development, acquisition of independent learning skills, and a somewhat better balanced education are significant results of the program.

* See description under General Curriculum Information in this publication.

Undergraduate and Graduate Programs in Cooperative Education

ADMISSION TO THE PROGRAM The program is open to all full-time undergraduate and graduate degree students in the College of Arts and Sciences, the College of Public Affairs, and the School of Business Administration. Applicants must be in good academic standing (2.00 grade-point average) and must obtain the approval of the appropriate academic advisors. Freshmen and transfer students in their first semester of attendance at the University are ineligible for placement. Additional specific admission criteria may be stipulated by schools or departments. Students are required to attend an orientation session, complete application and resume forms, obtain approval signatures, and have an interview with a co-op program coordinator. Qualified candidates are then referred to, and interviewed by, suitable employers. Students register in the program only if selected for a position. Application to the program does not imply a guarantee of placement, nor does it obligate students to accept offers of employment. However, once placed, a student must complete all employment and academic obligations agreed to at the time of registration, unless a specific written release is obtained from the Director of Cooperative Education, upon recommendation of the faculty coordinator.

**Required
Options**

Students enroll in 00.391 or 00.691 during work placement periods. Full-time placements may be for six-month periods (July through December and January through June) or for four-month periods (September through December, January through April, and May through August). Single-term placements and part-time placements may also be approved.

All jobs are reviewed and approved for credit by faculty coordinators. The credit value generally depends on the duration of the work period, and is determined by the director. Students are required to demonstrate what they have learned by means of written journals, papers, reports, portfolios, conferences, or seminars. Specific requirements are set by faculty coordinators and tailored to individual experience.

Students working full-time under the program are considered to be full-time students by the University, and they may take no more than two additional courses during the co-op work term.

Recommendations

Students opting for alternating or multiple placements must utilize summer sessions to complete degree programs within the usual time, or they may choose to extend their programs.

**Special
Opportunities**

Cooperative Education College Work-Study Program This program provides off-campus placements to undergraduate and graduate students who qualify for federal financial aid. Applicants must complete an American University financial aid application and either the Parents' Confidential Statement (PCS) or the Financial Aid Form (FAF). College work-study funds are awarded to subsidize salaries for co-op jobs offered by a variety of public and private nonprofit public interest employers.

Cooperative Education in the Federal Government These experiences offer undergraduate co-op students, employed by executive branch agencies, special eligibility for noncompetitive appointments to career positions, upon successful completion of a regular alternating co-op program. These assignments are open to sophomores and juniors only. In some cases, agencies pay for books, tuition, and fees, as well as salary.

Cooperative Education / Project Start This program is operated by the Department of Health, Education, and Welfare for rehabilitated ex-offenders. Agencies pay costs of tuition, books, and fees. Students are obligated to accept employment upon graduation, or reimburse tuition.

The Federal Summer Intern Program This program provides summer employment to undergraduate and graduate students. Students apply through, and are nominated by, the Cooperative Education Program for designated positions. However, they must compete with nominees from other colleges across the country. Federal summer interns are eligible to earn credit under the co-op program.

DEGREE OBJECTIVE This program does not lead to a degree. Credit earned in the Cooperative Education Program may be applied as major-related or general electives to baccalaureate and master's degree programs in the College of Arts and Sciences, the College of Public Affairs, and the School of Business Administration. Undergraduate students may earn up to 18 semester hours in the program. Graduate students must be placed in jobs specifically related to their major fields, and they may earn up to six semester hours in the program, subject to the approval of their academic advisors.

Courses of Instruction

Undergraduate

00.691 COOPERATIVE EDUCATION FIELD EXPERIENCE (0-9) May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisites:* completion of 30 semester hours of college courses and permission of director.

Graduate Courses

00.691 COOPERATIVE EDUCATION FIELD EXPERIENCE (0-9) May be repeated for credit, but not within the same term; topic must be different. Usually offered every term. *Prerequisites:* completion of nine semester hours of course work and permission of director.

Center for

Financial Management

DIRECTOR Raymond Einhorn

FULL-TIME FACULTY All full-time faculty are from the faculty of the sponsoring schools, the School of Business Administration and the School of Government and Public Administration. See the respective sections of this publication.

The center has established the Institute for Applied Public Financial Management to respond to the need for developing professional financial managers for federal, state, and local government. It is also designed for officials holding operating management positions where financial management is important.

By emphasizing the practical applications of concepts and principles in each course, the program assists the student in developing an operational capability to deal with complex problems. Each course is newly designed to meet the needs of the governmental organizations represented by the students in each class, which is limited to 22 students. Projects in Managerial Problem Solving, a six semester hour course combination, provides a laboratory for students to resolve the practical problems of their organizations.

Students are full-time employees who attend classes for six consecutive semesters, including two summers. The resources of the School of Business Administration and the School of Government and Public Administration are utilized in curriculum design, staffing, and the supervision of projects.

Masters Program in Applied Public Financial Management

ADMISSION TO THE PROGRAM Students are nominated for the program by their respective federal agencies, state agencies, counties, and cities. Nominations are based on work performance and potential development. University minimum standards require students to have a 2.50 (on a 4.00 scale) grade-point average in the last 60 semester hours of undergraduate education. All applicants must take the Graduate Management Admissions Test (GMAT), which measures aptitude, not knowledge. However, work performance will be an important factor in selection. The GMAT and work experience will be used to build an academic profile of the student for counseling purposes.

Course Requirements

(1) Nine core courses: 28.604, 28.606, 28.608, 28.610, 28.612, 28.614, 28.616, 28.618, and 28.620. (2) Courses required for some agencies: 28.602 or 28.609; courses in banking and seminars in finance are required by some agencies. (3) Projects in Managerial Problem Solving: 28.621, 28.622. (4) Three option courses selected by students and their governmental organizations in fields such as financial management; governmental management; land use, planning, and management; and management science.

Special Opportunities	With advance notice, the Institute for Applied Public Financial Management will offer one or more courses designed to meet the specialized needs of one or a group of federal agencies or local governments.
Advancement to Candidacy	After fulfilling any conditions or obligations specified in admissions notices, completing eight courses, and providing evidence of satisfactory progress in the Projects in Managerial Problem Solving, students must apply for advancement to candidacy.
Tools	All core courses and the Projects in Managerial Problem Solving are developed on the basis of the needs, problems, and objectives of the students and their employer organizations, and are taught on an applied basis. The emphasis on practical applications in each of these courses requires participation of employers, and students' access to the data and officials of their respective governmental units.
Examinations	A student will be required to perform satisfactorily on a comprehensive examination composed of oral and written presentations on the work done in the Projects in Managerial Problem Solving.
Thesis	In lieu of a thesis, each student presents a report in oral and written form on the work done in connection with the Projects in Managerial Problem Solving. The student will be expected to know the conceptual basis of the problem and to demonstrate a capacity to apply knowledge and to execute duties effectively.

DEGREE OBJECTIVE Students receive a degree of Master of Public Financial Management with a major in Applied Public Financial Management. This degree is awarded jointly by the School of Business Administration and the School of Government and Public Administration.

Courses of Instruction

Graduate Courses

28.602 SYSTEMS THEORY AND ANALYSIS (3) Underlying philosophy and conceptual framework of systems theory analysis. Understanding analytical capabilities required for output-oriented program structures; operational constraints. Management information systems. Introduction to concepts of utilization of computers as management tools, including cases in students' organizations. *Prerequisite:* approval by the Center for Financial Management.

28.604 PUBLIC MANAGEMENT (3) Environments, technologies, and strategies which characterize professional public management. Examination of context in which students' organizations operate, including institutional constraints and forces for growth and change. Functions of administrative systems in governments. Task-force investigations and reports for students' own agencies. Usually offered every fall. *Prerequisite:* approval by the Center for Financial Management.

28.606 MANAGERIAL MACROECONOMICS (3) Study of determinants of national income, consumption, interest rates, investment, government spending and taxation, and monetary and fiscal policy, in a theoretical as well as an applied context for decision making in the student's agency or local government. Usually offered every fall. *Prerequisite:* approval by Center for Financial Management.

28.608 MANAGERIAL ACCOUNTING AND BUDGETING (3) Premises, principles, and selected procedures for financial accounting for industry and federal and local governments. Accounting for decision making in students' organizations. Emphasis on viewpoints of users, including operating and budget officials. Auditing function is integrated in accounting and budgeting discussions. Projects in problem areas identified by students and their organization. Usually offered every spring. *Prerequisite:* approval by the Center for Financial Management.

28.609 MANAGEMENT INFORMATION SYSTEMS (3) Practical knowledge needed for development, implementation, operation, and maintenance of unified management information systems. Environmental problems in applying new management tools. Planning programs and management information systems. Case histories of federal and local governments' design and use are reviewed. Students investigate and initiate designs of MIS for own organizations. Usually offered every fall. *Prerequisite:* approval by the Center for Financial Management.

28.610 PUBLIC FINANCE (3) Theoretical basis of federal, state, and local finance; working knowl-

edge of techniques for utilization generally and in student's organization. Taxation sources and principles, expenditures, debt management, and budget processes are covered. (Course expanded for some classes to include corporate finance, financing of business firms, capital instruments, cost of capital, and money markets.) Usually offered every fall. *Prerequisite:* approval by the Center for Financial Management.

28.612 MANAGERIAL MICROECONOMICS (3) Tools of economic analysis applied to problems in such areas as government regulation, urban decline, and program evaluation. Fundamental concepts of demand theory, forecasting, elasticity, and productivity measurements. Applications of resource allocation measurement within context of areas in which students have worked or will work. Case studies or projects are utilized. Usually offered every summer. *Prerequisite:* approval by the Center for Financial Management.

28.614 HUMAN BEHAVIOR AND LEADERSHIP (3) Development of students' ability to understand and manage effectively human relationships in organizational settings. Major concepts, theories, and research studies are explored. Self-discovery of principles of human interaction and fostering a self-understanding of the students' working relationships in his or her organization. Students participate in projects for presentation to their organizational units. Usually offered every spring. *Prerequisite:* approval by the Center for Financial Management.

28.616 QUANTITATIVE METHODS FOR PUBLIC MANAGEMENT (3) Introduction to understanding and use of advanced statistical and quantitative techniques. Utilization of analytical and logical methods in developing reliable conclusions from incomplete information. Introduction of computer usage. Specific applications are made to problems in students' agencies and local governments. Presentations made in certain cases to sponsoring governmental units. Usually offered every fall. *Prerequisite:* approval by the Center for Financial Management.

28.618 POLITICAL DYNAMICS OF PUBLIC ADMINISTRATION (3) Analysis of decision making processes in governmental policy making. Relationship of national, state, and local governments. Study of interaction of politics and administration on all levels of government. Students trace political and administrative issues through the intergovernmental system with applications to their own organizations. Usually offered every fall. *Prerequisite:* approval by the Center for Financial Management.

28.620 PUBLIC PROGRAM EVALUATION (3) Techniques for evaluating the effectiveness of public programs. General criteria used to judge programs; tradeoffs. Problems of measuring effectiveness. Design of evaluation studies. Cost-benefit and cost-effectiveness analysis; problems of attaching monetary values to programmatic inputs and outcomes. Students apply tools of program evaluation in areas of their own interest. Usually offered every spring. *Prerequisite:* approval by the Center for Financial Management.

28.621, 28.622 PROJECTS IN MANAGERIAL PROBLEM SOLVING I, II (3), (3) Participating organizations and their students identify complex projects for improvements needed to resolve significant problems. Each student is assigned to a project to test capability as a practitioner. Projects are daytime courses since access is needed to officials, records, and other data. Successful performance in practical financial management projects is an essential ingredient of institute program, and a major factor in obtaining the degree. Usually offered every term. *Prerequisite:* approval by the Center for Financial Management.

28.690 INDEPENDENT STUDY PROJECT IN APPLIED PUBLIC FINANCIAL MANAGEMENT (1-6)*

NOTE ALSO: See the School of Business Administration and the School of Government and Public Administration sections in this publication for examples of courses that may be taken for credit towards the Master of Public Financial Management degree, with approval of the Center for Financial Management. Two current illustrations are 10.765 and 54.639.

Interdisciplinary Studies

CHAIRMAN, SENATE COMMITTEE ON INTERDISCIPLINARY STUDIES Vito Mason

Academic Counselor G. F. Struzynski

The Office of Interdisciplinary Studies is both an end in itself—counseling students in the formation of

* See description under General Curriculum Information in this publication.

undergraduate and graduate, formal and informal interdisciplinary majors; and a mechanism—assisting faculty and students with ideas, programs, and projects of an interdisciplinary nature. The following material on interdisciplinary programs and courses at The American University is thus under constant revision with new listings added periodically. Up-to-date information on all interdisciplinary activities can be acquired from the Office of Interdisciplinary Studies, The American University, Washington, D.C., 20016.

Undergraduate Program in Interdisciplinary Studies

MAJORS Individually designed majors focused on an interdisciplinary theme.

ADMISSION TO THE PROGRAM This program is designed for students who wish to construct their own major program of study in accordance with their needs, capacities, and interests. The initiative in formulating an interdisciplinary major is left to the student. The student has the responsibility to determine the central concept around which the program is constructed and to formulate in writing a list of all courses,—major, related and tool—which are to serve as major requirements for the program. The student must secure the advice and program approval of three full-time faculty members, at least one from each of the two or more disciplines involved in the interdisciplinary field. The faculty members will assist the student in the setting up of course requirements and will act as faculty advisors in their respective areas.

As a rule, final written application to the program should be made no later than the first semester of the junior year and no earlier than the second semester of the freshman year. Students must have at least a 2.00 grade-point average to be accepted.

Required Options

All programs must include at least 45 semester hours selected to comprise an academically sound area of concentration defined by a central concept. The area of concentration may not be the focus of any current degree program offered by The American University, and the central concept must be interdisciplinary in character. A random collection of interesting courses taken from several departments does not constitute an acceptable interdisciplinary program. Each program should be designed to give the student the fundamental skills and background knowledge relevant to the specific interdisciplinary area. Courses which a student has already taken at The American University, or which The American University has accepted in transfer, may be counted as part of the interdisciplinary major requirements when they are clearly within the proposed interdisciplinary field.

39 of these 45 semester hours must be selected from appropriate departments and schools according to their relevance to the proposed interdisciplinary theme. A minimum of 30 hours must be upper level (300 or above), and it is usually advisable to include at least two 500-level courses.

The remaining six hours for the major must be special courses, independent study projects under the direction of the major advisor, constructed to unite the various aspects of the interdisciplinary program. With the advisor's approval, the student may substitute an internship course under the direction of the major advisor, a senior seminar, a 500-level seminar, or Cooperative Education experience for one or both of the two special courses.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts or Bachelor of Science with a major in Interdisciplinary Studies: (approved title of the central concept).

Undergraduate Program in Communication, Legal Institutions, Economics, and Government (CLEG)

ADMISSION TO THE PROGRAM This formal interdisciplinary program is designed for students who want a breadth of background necessary to participate effectively in decision making for public affairs and the practical training necessary to deal with social problems in public issues.

Admission requires a 2.00 grade-point average and approval by a CLEG faculty advisor. All arrangements for the major should be made no later than the first semester of the junior year.

Set Requirements 17.201, 73.101, 19.101, 19.102, 75.440, 75.490 and 75.491.

**Required
Options**

(1) Two of the following: 53.100, 53.130, 53.150. (2) 53.370 or 53.372. (3) 21 additional semester hours, including 12 hours at the 300-level or above, selected from a list of approved courses in communication, legal institutions, economics, and government. The list of approved courses is available from the office of Interdisciplinary Studies. Students must choose these 21 additional hours so that their total program includes 9 hours from each CLEG area.

Recommendations

Students desiring further study should consider master's level programs available in communication, economics, government, administration of justice, and public administration.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Interdisciplinary Studies: Communication, Legal Institutions, Economics, and Government.

Undergraduate Program in Law and Society

ADMISSION TO THE PROGRAM This formal interdisciplinary program is designed for students who anticipate further education and/or careers in law and law-related areas, as well as in the social sciences and humanities.

Admission to the program requires a minimum grade-point average of 2.00 and formal approval by one of the program faculty advisors. All arrangements for the major should be made no later than the first semester of the junior year.

**Set
Requirements**

73.101, 73.220, 19.101, 19.102, 53.370 or 53.372, 65.332 and 75.440.

**Required
Options**

Students must select, in consultation with their program advisor, an additional nine courses from an approved list of law and society courses in the following areas: law and the city, law and economics, criminal justice, legal systems—normative, comparative legal systems, theoretical foundations of law, and law and public policy. This list of approved courses can be obtained from the Office of Interdisciplinary Studies.

Recommendations

Students are advised to select some of their elective courses from related areas such as history, anthropology, and philosophy.

**Special
Opportunities**

Independent study projects, internships, and 500-level seminars are available on the list of approved law and society courses.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts in Interdisciplinary Studies: Law and Society.

Undergraduate Program in Mass Communication and Society

ADMISSION TO THE PROGRAM This formal interdisciplinary program is designed for students who desire skill development in communication combined with scholarly study of the social processes and dynamics of our modern society.

Admission to the program requires a 2.50 grade-point average and formal approval of the program directors. All arrangements for the major should be made no later than the first semester of the junior year.

**Set
Requirements**

17.101, 65.200, 65.420, and 65.421

**Required
Options**

17.100 or 17.201; 65.383 or 65.333; 65.350 or 65.331 or 65.387; 65.330 or 65.341; 65.581; two additional sociology courses; two additional communication courses as approved by the program directors; and a communication skill module consisting of four courses selected from an approved list available from the Office of Interdisciplinary Studies. Communication skill modules are available in the areas of print journalism, broadcast journalism, film production, and broadcasting production.

DEGREE OBJECTIVE Students receive a degree of Bachelor of Arts with a major in Interdisciplinary Studies: Mass Communication and Society.

Master's Program in Interdisciplinary Studies

MAJORS Individually designed majors focused on an interdisciplinary theme.

ADMISSION TO THE PROGRAM Graduate students interested in establishing an individually constructed interdisciplinary master program must first be admitted to a school or college of the University. In applying for admission, the prospective graduate student may inform the faculty and teaching units of his or her interdisciplinary goals. In this manner, the student unofficially explores the possibilities of obtaining faculty support for the desired interdisciplinary program.

Graduate students interested in this program should complete an application form available in Office of Interdisciplinary Studies. This completed form, along with a written statement of the concept of the program, and the letter of admittance into a school or department of the University will serve as the admission packet for entrance into the program.

Once this packet receives approval by the Office of Interdisciplinary Studies and the dean of the college to which the student has been admitted, it will serve as the official record of the student's interdisciplinary master program.

All programs must have the approval of three full-time faculty members, at least one from each of the two or more disciplines which may be involved in the interdisciplinary field. The responsibility for securing the advice and signature of the three faculty members is left with the student, in consultation with the Office of Interdisciplinary Studies. The student should select one of the faculty advisors as the primary advisor and the primary advisor must be from the admitting school (or department if the student is a College of Arts and Science admittee).

Course Requirements

The individually designed interdisciplinary master program allows graduate students to design their own M.A. or M.S. program built around a central theme that cuts across various disciplines. Every program must comprehend an academically sound area of concentration defined by a central concept. The area of study must not duplicate the program of any master's degree currently offered by the University. The central concept, the description of the area or areas of concentration, must be explained in a written statement attached to the application for approval of the master's program.

The University requires a minimum of 30 semester hours of graduate work for the master's degree, including 6 hours of research credit, either in writing a thesis or in completing special research oriented seminars. At least 24 hours, including the thesis or research sequence, must be completed in residence, and the courses, which may be offered by several different departments, should be selected to support and encompass the interdisciplinary area of study.

Examinations

The subject and scope of the comprehensive examination must be determined by the student and his or her advisors at the time of initial approval of the interdisciplinary field. A statement detailing the provisions for the examination (who will draw it up, areas covered, and who will evaluate it) must be submitted with the application to the Office of Interdisciplinary Studies. Unless otherwise indicated, the faculty who approve the program take responsibility for drawing up, administering, and evaluating the comprehensive examination.

Thesis

The research requirement (six semester hours of graduate credit) may be satisfied in either of two ways: (1) the writing of a thesis (practicum) or (2) completion of two research oriented seminars at the 600- or 700-levels with a grade of B or better. These research oriented courses should serve as unifying courses to the elements of the program. The application section on this option must specify which option has been chosen, and indicate which courses will be taken (on a nonthesis option), or the subject of the thesis and the members of the thesis committee (on a thesis option).

DEGREE OBJECTIVE Students receive a degree of Master of Arts or Master of Science with a major in Interdisciplinary Studies: (approved title of the central concept).

Master's Program in Film

ADMISSION TO THE PROGRAM Graduate students interested in an M.A. in Film must be admitted to a school or college. In applying for this admission to a school or college, the prospective graduate student may inform the faculty and teaching units of his or her interdisciplinary goals. In this manner, the student unofficially explores the possibilities of obtaining faculty support for the desired

interdisciplinary program. The Office of Interdisciplinary Studies and the administering office of the admitting school or college will aid the prospective student in obtaining faculty advice.

Course 17.511, 17.512, 17.454, 17.455, 17.558, 17.559, 17.654, 17.655,
Requirements 17.690, 23.642, 23.650, 23.651, 23.652, 23.653, 23.654, and 23.690.

Examinations A comprehensive examination is required. The subject area is decided on the basis of individual student programs by the program advisors.

Thesis A nonthesis option is developed with enrollment in 17.690 and 23.690.

DEGREE OBJECTIVE Students receive a degree of Master of Arts with a major in Interdisciplinary Studies: Film.

NOTE ALSO See the School of Communication and Department of Literature course and program listings in this publication.

Courses of Instruction

Undergraduate Courses

75.201 PERSPECTIVES ON ENVIRONMENTAL CRISES (3) Survey of typical environmental problems facing man. Ecological, technological, and cultural implications of environmental problems are considered. Topics include: energy crisis, oil pollution, economic growth, water pollution, population, and world food supply. Designed to serve as introductory course for environmental majors. Nonmajors may take it as an elective. May be repeated for credit within the same term; topic may be the same. Usually offered every fall.

75.202 ENVIRONMENTAL SCIENCE I (4) Designed to familiarize nonscience majors with the broad physical and biological aspects of our environment. Emphasis placed on the following: common organisms and their ecological relationships; the various sciences and social aspects of environmental disruption; environmental assessment; and field and laboratory experiences. Required of environmental science majors. Usually offered every fall.

75.203 ENVIRONMENTAL SCIENCE II (3) Principles of natural science as these relate to sanitation management in urban communities for the protection of human health and welfare and the maintenance of the quality of life as this is defined in the National Environmental Policy Act of 1970. May be repeated for credit within the same term; topic may be the same.

75.270 SEMINAR IN HUMAN COMMUNICATION (3) Available only through registration in First Year Module on Human Communication. May be taken for the arts and humanities distribution requirement or the social sciences distribution requirement.

75.301 ENVIRONMENTAL STUDIES COLLOQUIUM (3) Designed to expose the student to ideas, concepts, and theory with discussion and interaction with prominent leaders in the environmental field. Attendance, outside readings, and reaction papers are required. May be repeated for credit within the same term; topic may be the same. Usually offered every fall.

75.390 INDEPENDENT READING COURSE IN INTERDISCIPLINARY STUDIES (1-6)*

75.401 ENVIRONMENTAL STUDIES SENIOR RESEARCH PROJECT (3) Students conduct an interdisciplinary environmental research project under the direction of environmental studies major advisor and primary major advisor. Project includes preparation of final report and presentation in seminar. May be repeated for credit within the same term; topic may be the same. Usually offered every fall.

75.410 SPECIAL MODULE IN BRITISH CULTURE (3-6) Designed to enhance cross-cultural awareness of London Semester students. Modules cover several different disciplines during any one semester. These are modules that focus on different aspects of British culture (e.g., art in London etc.). Designed to enhance themes developed in British politics and society seminars of the London Semester. Open to juniors and seniors in any major who are in the London Semester. Two sections. Students must take both. May be repeated for credit, but not within the same term; topic must be different. Usually offered every fall. *Prerequisite:* permission of instructor.

*See description under General Curriculum Information in this publication.

75.440 LEGAL REASONING (3) Introduction for upper-division undergraduates. Students absorb scholars' and judges' descriptions of process of analysis and decision in law; practice legal reasoning themselves through analysis of appellate decisions, statutes, and U.S. Constitution; study procedural and organizational components of the American legal system; and choose one of several selected areas on which to concentrate and synthesize their learning process by developing reasoned, written arguments regarding the preselected issue. May be repeated for credit, but not within the same term; topic may be the same. Usually offered every fall.

75.449 CLEG SENIOR SEMINAR (3) The purpose of the senior seminar is to provide the students in this program and any analogous programs with a capstone to the study of communications, legal institutions, economics, and government. In this seminar, the student applies and extends his or her knowledge of these fields. The seminar seeks to utilize the means of readings, research, interviews, and seminar projects to discuss changing topics relevant to this area of study. May be repeated for credit, but not within the same term; topic must be different. Usually offered every spring.

75.490 INDEPENDENT STUDY PROJECT IN INTERDISCIPLINARY STUDIES (1-6)*

75.491 INTERNSHIP (1-6) May be repeated for credit within the same term; topic may be the same. Usually offered every term.

Graduate and Advanced Undergraduate Courses

75.563 WOMEN IN TODAY'S ENVIRONMENT (1-3) A multidisciplinary course which includes the economic, biological, psychological, sociological, anthropological, and political aspects of women's activities in today's American life-style. There are 22 lectures in this radio lecture course. Students must develop a comprehensive portfolio according to the study guide provided. Taught by University faculty and guest lecturers. May be repeated for credit within the same term; topic may be the same. Usually offered every fall.

75.590 INDEPENDENT READING COURSE IN INTERDISCIPLINARY STUDIES (1-6)*

Graduate Courses

75.690 INDEPENDENT STUDY PROJECT IN INTERDISCIPLINARY STUDIES (1-6)*

75.691 INTERNSHIP (1-6) May be repeated for credit within the same term; topic may be the same. Usually offered every term.

75.700 THE FOLGER SEMINAR IN RENAISSANCE AND EIGHTEENTH CENTURY STUDIES (3) Each semester three graduate seminars are offered. Graduate students at The American University are eligible to participate and should consult either the chairman of the University's Interdisciplinary Studies Committee or the department's Director of M.A. Studies. May be taken more than one semester. Usually offered every term.

Other Programs

INSTITUTES An institute is a specialized and intensive academic offering of the University designed primarily for persons engaged in professional fields. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments, and research projects.

Individual institutes are listed under their appropriate academic units in this publication.

THE BUSINESS COUNCIL FOR INTERNATIONAL UNDERSTANDING (BCIU) INSTITUTE In 1959 the Business Council for International Understanding selected The American University as its training institute to prepare U.S. and foreign business executives and their families to effectively work and live in other cultures. The BCIU Institute provides workshops monthly for personnel from international organizations, and has more than 2,000 graduates living in 87 countries, including Eastern Bloc countries. Programs consist of high-intensity language instruction in 16 languages, intercultural communications workshops for more than 100 countries, area studies for 21 major regions, and relocation services for 34 major cities throughout the world. In-house programs are conducted for

management and organization development, government-business relations, intercultural communications training, and area/country orientation. The faculty is composed of resource personnel from The American University and other area universities, U.S. Government, international organizations, and international business.

For additional information, write to the Director, The BCIU institute, The American University, Washington, D.C. 20016.

THE GRAZ CENTER The Association of Colleges and Universities for International-Intercultural Studies, Inc., (ACUIIS), is an organization of colleges and universities concerned with the development of international education through academic excellence and ethical motivation.

The programs of the association are designed to introduce students to foreign cultures in their original environments. A well-balanced encounter with academic subjects and social opportunities encourages participants to seek creative interpretation of contemporary problems. These experiences are designed to prepare the student for understanding the concept of world citizenship.

One of the principal projects of ACUIIS is the Graz Center. Graz Center classes are taught in English at Graz University, a European university with a long and distinguished heritage. The 900-year-old city of Graz was selected because its superb setting stimulates creative thinking and deeper understanding of the past, and because Graz is a natural bridge between East and West. Graz is especially well situated to promote communication with such countries as Yugoslavia, Hungary, Czechoslovakia, and the Soviet Union. As a neutral country, Austria provides a base for exchange of ideas among the communities which surround her borders.

For further information on opportunities at Graz, contact the School of International Service, The American University, Washington, D.C. 20016.

CENTER FOR RESEARCH AND DOCUMENTATION ON THE EUROPEAN COMMUNITY (CERDEC) Established in 1971 and housed in the Department of Language and Foreign Studies, CERDEC has been granted the status of Center for European Documentation by the authorities of the European Community in Brussels.

The center provides academic guidance for courses and research in the field of European integration. It encourages teaching on the Common Market through available undergraduate and graduate programs, some being administered jointly by the Department of Language and Foreign Studies and the Department of Communication or the School of International Service. Another function of CERDEC is to see that the various publications from the institutions of the European Community are made available on a daily basis to interested students on the campus as well as those from other schools of the Consortium of Universities of the Washington Metropolitan Area.

For additional information write to the office of the Director, CERDEC, The American University, Washington, D.C. 20016.

WASHINGTON SEMESTER PROGRAMS Established in 1947 and operated by the School of Government and Public Administration of the College of Public Affairs, the Washington Semester Programs provide intercollegiate honors programs for field study of various aspects of the American governmental and political system. More than 260 students from over 140 colleges across the country attend each year for a full semester to pursue their choices among six programs of study in which meetings in the field with public officials, lobbyists, political figures, and others active in the governmental and political process serve as central elements in the teaching methodology. Guide individual and team field research and internships are also provided in connection with these offerings.

The seven programs of study are:

The Washington Semester in American National Government This is the original program offering and covers the American national governmental and political system as a whole. It is taught by members of the faculty of the School of Government and Public Administration of the College of Public Affairs.

The Washington Urban Semester Patterned on the Washington Semester, the Washington Urban Semester is part of the program in urban affairs of the School of Government and Public Administration and serves both the student body at The American University and the member colleges of the Washington Semester programs. Emphasis is placed not on urban politics alone, but also on policies of regional agencies, states, and the national government in urban matters, and the politics of intergovernmental decision-making in this field.

The Foreign Policy Semester Originating as the Washington International Semester in Fall 1971

the Foreign Policy Semester is offered by the faculty of the School of International Service of the College of Public Affairs and, like the Urban Semester, is open to students both from The American University and from member colleges. The Foreign Policy Semester provides its students with an opportunity to observe and study the manifold governmental, international, and private activities which contribute to the United States' posture in world affairs.

The International Development Semester Taught by the faculty of the School of International Service, the International Development Semester focuses on problems and policies of less-developed nations and their relations with the more advanced industrial countries. It is open to students from The American University and from member schools in the Washington Semester Programs.

The Washington Economic Policy Semester The Washington Economic Policy Semester is offered by the faculty of the Department of Economics of the College of Arts and Sciences. It is an intensive examination of the macro and micro dimensions of the policy-making process in the nation's capital. The program is designed for students with an interest in the practical as well as the theoretical. The subject focus is on stabilization policy in all of its aspects-theoretical, practical, and political; environmental economics and the economics of the energy shortage; international economy and recent developments in the international monetary field and the impact of the multi-national corporation. Additional topic areas include tax policy, poverty and the attempts to reduce poverty, anti-trust actions and the role of big business, and urban economic policy. It is open to students from The American University and member colleges in the Washington Semester Programs.

The Washington Science and Technology Semester The Washington Science and Technology Semester is offered by an interdisciplinary faculty of the College of Arts and Sciences and the College of Public Affairs. It focuses on insights into the present state of science and technology in specific national problem areas such as the energy shortage, environmental pollution, nutrition, health, crime detection and deterrence, and national defense. Other study areas include federal policy toward science, funding sources in the federal government, issuance of patents and licenses, the sources of scientific and technical information, and the roles of scientists, scientific societies, pressure groups, and the press in policy-making. The program is designed for upper undergraduate students majoring in the natural sciences, mathematics, and computer science. It is open to students from The American University and member colleges in the Washington Semester Programs.

The Washington Semester in American Studies This special one-semester program offers an integrated experience of Washington, D.C., through internships, research projects, and a course in the historical development and cultural life of the city. The program is conducted by the faculty of the American Studies Program in the College of Arts and Sciences. It is open to students from The American University and member colleges in the Washington Semester Programs.

ROTC Reserve Officer Training Corps (ROTC) programs at Georgetown and Howard universities are available to American University students when they register through the Consortium of Universities of the Washington Metropolitan Area. Georgetown University offers Army ROTC courses in military science. Howard University offers Air Force ROTC courses in aerospace science. Students may enroll for zero through four semester hours credit per semester.



American's president, Dr. Joseph J. Sisco, formerly undersecretary of state for political affairs, lectures a class drawing from his expertise in Middle East affairs.

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ABBREVIATIONS

Acad.—Academy
Admin.—Administration
Asst. Prof.—Assistant Professor
Assoc. Prof.—Associate Professor
Certif.—Certificate
Dipl.—Diploma
Dir.—Director

Emer.—Emeritus
Inst.—Institute
Instr.—Instructor
Prof.—Professor
Sch.—School
Univ.—University
Vist.—Visiting

Disciplines

Admin. of Justice—Administration of Justice
 Amer. Studies—American Studies
 Anthro.—Anthropology
 Biol.—Biology
 Bus. Admin.—Business Administration
 Chem.—Chemistry
 Comm.—Communication
 Comnty. Studies—Community Studies
 Econ.—Economics
 Educ.—Education
 English Lang.—English Language Institute
 Govt. and Pub. Admin.—Government and Public Administration
 Hist.—History
 Internat. Service—International Service
 J. Studies—Jewish Studies
 Lang. and For. Studies—Language and Foreign Studies
 Learning Ctr.—Learning Center
 Lit.—Literature
 Math., Stat. and Comp. Sc.—Mathematics, Statistics and Computer Science
 Mus.—Music
 Perf. Arts—Performing Arts
 Phil. and Rel.—Philosophy and Religion
 Physical Educ.—Physical Education
 Phys.—Physics
 Psych.—Psychology
 Sociol.—Sociology
 Tech. and Admin.—Technology and Administration
 * Asterisk indicates department chairman or director.

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Ark.—Arkansas	Mass.—Massachusetts	Ore.—Oregon
Calif.—California	Md.—Maryland	Pa.—Pennsylvania
Chic.—Chicago	Mich.—Michigan	R.I.—Rhode Island
Colo.—Colorado	Minn.—Minnesota	S.C.—South Carolina
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- WEISS, STANLEY J.** (1968), B.A., C.C.N.Y.; M.A., Ph.D., O. State Univ.; Prof. of Psych.*
- WEISSBROD, CAROL S.** (1973), B.S., Tufts Univ.; M.A., Ph.D., Northwestern Univ.; Asst. Prof. of Psych.
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- WELT, ISAAC D.** (1964), B.Sc., M.Sc., McGill Univ.; Ph.D., Yale Univ.; Prof. of Tech. and Admin.
- WESS, HAROLD B.** (1953), B.S., C.C.N.Y.; Prof. Emer. of Bus. Admin.
- WHITE, CHARLES S. J.** (1971), B.A., Univ. of Wisc.; M.A., Univ. of the Americas; M.A., Ph.D., Univ. of Chic.; Assoc. Prof. of Phil. and Rel.
- WHITE, JOHN A.** (1966), B.A., Oberlin Coll.; M.S., Ph.D., Yale Univ.; Prof. of Phys.
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- WHITMAN, RAY D.** (1975), B.S., Ph.D., Columbia Univ.; Asst. Prof. of Govt. and Pub. Admin.
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- WOLFE, GREGORY B.** (1976), A.B., Reed Coll.; M.A., Ph.D., The Fletcher Sch. of Law and Diplomacy. Prof. and Dean of the Sch. of Internat. Service.
- WOLFSON, LEWIS W.** (1969), B.A., Dartmouth Coll.; M.S., Columbia Univ.; M.A., Harvard Univ.; Prof. of Comm.

- WOOD, GLYNN L.** (1969), B.A., La. State Univ.; A.M., Stanford Univ.; Ph.D., M.I.T.; Assoc. Prof. of Govt. and Pub. Admin.
- WRATHALL, C. RICHARD** (1974), B.S., M.S., Ph.D., Univ. of Utah; Asst. Prof. of Biol.
- WYATT, KATHRYN** (1945), A. B., Meredith Coll.; M.A., Middlebury Coll.; Ph.D., Catholic Univ.; Prof. Emer. of Lang. and For. Studies.
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- YAMAUCHI, JOANNE S.** (1970), B.A., Goucher Coll.; M.A., Columbia Univ.; Ph.D., Northwestern Univ.; Assoc. Prof. of Comm.
- YARNALL, SHIRLEY** (1959), B.A., Wilson Coll.; Assoc. Prof. of Lit.
- YATES, BRIAN T.** (1976), B.A., Univ. of Calif. (San Diego); Ph.D., Stanford Univ.; Asst. Prof. of Psych.
- YOSHIMASHI, TAKEHIKO** (1959), B.A., U.C.L.A.; M.A., Harvard Univ.; Ph.D., Yale Univ.; Prof. of Internat. Service.
- YOUNG, LOUISE M.** (1958), B.A., O. Wesleyan Univ.; M.A., Ph.D., Pa. State Univ.; Prof. Emer. of Lit.
- YUMKAS, GAIL B.** (1976), B.A., Univ. of Md.; M.S., The Amer. Univ.; Instr. in Bus. Admin.

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- ZAPATKA, FRANCIS E.** (1959), A.B., Fordham Univ.; M.A., Trinity Coll.; Ph.D., Catholic Univ.; Assoc. Prof. of Lit.
- ZAUDERER, DONALD G.** (1970), B.S., O. State Univ.; M.A., Kent State Univ.; Ph.D., Ind. Univ.; Assoc. Prof. of Govt. and Pub. Admin.

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- ARNOLD, GEORGE D.** (1971), B.A., Seminary of St. Pius X; M.L.S., Univ. of Md.; Assoc. Librarian.
- COULTER, MARTHA L.** (1974), B.A., Emory Univ.; M.S., in L.S., Catholic Univ.; Asst. Law Librarian.
- DENNIS, DONALD D.** (1971), A. B., Bowdoin Coll.; B.A., M.L.S., Univ. of Calif. (Berkeley); Univ. Librarian.
- FLUG, JANICE L.** (1975), B.A., Hamline Univ.; M.L.S., Univ. of Md.; Asst. Librarian I.
- HEINTZE, JAMES R.** (1969), B.S., Loyola Coll.; M.A., The Amer. Univ.; M.L.S., Univ. of Md.; Asst. Librarian II.
- KEHOE, PATRICK E.** (1973), B.C.S., Seattle Univ.; J.D., M.L.L., Univ. of Wash.; Law Librarian.
- KELLEY, PATRICIA M.** (1971), B.A., Univ. of Colo.; M.L.S.; Univ. of Md.; Asst. Librarian II.
- MILAM, MARGARET MITCHELL** (1971), B.A., M.L.S., Univ. of Md.; J.D., The Amer. Univ.; Assoc. Law Librarian.
- VEILSON, SUSAN H.** (1968), B.A., Keuka Coll.; M.S.L.S., Drexel Inst. of Tech.; Asst. Librarian II.
- REYNOLDS, SALLY-JO** (1965), B.A., Univ. of Mich.; M.S.L.S., Columbia Univ.; Assoc. Librarian.
- SCHMIDT, HERBERT K.** (1968), B.A., Weber State Coll.; M.A.L.S., Univ. of Mich.; Assoc. Librarian.
- SMITH, JACQUELINE L.** (1974), B.A., The Amer. Univ.; M.L.S., Univ. of Md.; Asst. Law Librarian.
- SUELZLE, KRISTI** (1975), B.A., Univ. of Seattle; M.L.S., S.U.N.Y. Albany; Asst. Librarian I.
- VOGELSONG, DIANA** (1975), B.A., Kalamazoo Coll.; M.L.S., Univ. of Md.; Asst. Librarian I.

1976-1977 Part-time Faculty

THE FACULTY LIST BELOW COVERS THE 1976-1977 ACADEMIC YEAR ONLY.

ABBREVIATIONS

Lect.—Lecturer

Prof. Lect.—Professorial Lecturer

Adj. Prof.—Adjunct Professor

For a complete listing of abbreviations see the beginning of the full-time faculty section.

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ADAMS, ELIZABETH (1974), B.A., Syracuse Univ.; M.S., Yeshiva Univ.; Prof. Lect. in Math., Stat. and Comp. Sc.
AHMED, ALTAF (1972), M.A., Punjab Univ.; M.A., George Wash. Univ.; Lect. in Math., Stat. and Comp. Sc.
ALLEN, CATHERINE M. (1977), B.A., Tex. Christian Univ.; M.S.S.W., Univ. of Tex.; Lect. in Sociol.
ALLENDORFER, MARY E. (1976), B.A., Marymount Coll.; J.D., Georgetown Univ.; Lect. in Law.
ALL-OSAIDY, MARY RUNYON (1975), B.S.Ed., Wheelock Coll.; M.A., Columbia Teachers Coll.; Lect. in English Lang.
ALLUMS, JOHN F. (1975), B.S., Miss. Sou. Univ.; M.A., Ph.D., Univ. of Io.; Adj. Prof. of Govt. and Pub. Admin.
ALSPACH, THOMAS TOLBERT (1976), B.A., Princeton Univ.; J.D., Fla. State Univ.; Lect. in Law.
ALTER, HARVEY (1974), B.S., Queens Coll.; M.S., Ph.D., Univ. of Cincinnati; Prof. Lect. in Tech. and Admin.
ALVIANI, JOSEPH D. (1976), A.B., Dartmouth Coll.; J.D., Harvard Univ.; Lect. in Law.
ANDREWS, MEADE (1976), B.A., Mary Wash. Coll.; M.A., Univ. of Md., Ph.D., Univ. of Ga.; Adj. Prof. of Perf. Arts.
ANTONOPLOS, DANIEL P. (1975), B.A., Univ. of N.H.; Ed.M., Univ. of Mo.; Ed.D., Ind. Univ.; Adj. Prof. of Educ.
ARLEN, GARY (1975), A.B., Wash. Univ.; M.S., Northwestern Univ.; Lect. in Bus. Admin.
ASCHER, ABRAHAM (1976), B.S.S., C.C.N.Y.; M.A., Ph.D., Columbia Univ.; Adj. Prof. of Admin. of Justice.
ASDORIAN, MARTIN, JR. (1976), B.S., Univ. of Pa.; M.B.A., C.U.N.Y.; Lect. in Bus. Admin.
AUBERGER, KENNETH (1973), B.B.A., Siena Coll.; J.D., M.B.A., The Amer. Univ.; Prof. Lect. in Bus. Admin.
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BACALL, SUSAN (1973), B.A., M.A., Univ. of Wisc.; Lect. in Lit.
BAILEY, JAMES M. (1974), B.A., Marquette Univ.; LL.B., Catholic Univ.; Prof. Lect. in Admin. of Justice.
BAKER, SUSANNE (1972), B.S., Bucknell Univ.; M.A., Univ. of Wisc.; M.A., The Amer. Univ.; Lect. in Mus.
BALDERSTON, C. CANBY (1966), B.S., M.A., Ph.D., Univ. of Pa.; Adj. Prof. of Bus. Admin.
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BARIDON, PHILIP C. (1977), B.A., Bucknell Univ.; M.A., Ph.D., S.U.N.Y. (Albany); Prof. Lect. in Admin. of Justice.
BARNABAS, ESSICA (1975), B.Sc., M.Sc., Osmania Univ.; B.Ed., Mysore Univ.; Ph.D., Howard Univ.; Prof. Lect. in Biol.

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BASS, JAMES (1976), B.A., Univ. of Tex.; M.A., Ph.D., Univ. of Mich.; Prof. Lect. in Econ.
BATEMAN, DAVID V. (1970), A.A., Corning Comm. Coll.; B.A., Univ. of Buffalo; M.A., Univ. of Nebr.; Lect. in Math., Stat. and Comp. Sc.
BEATY, JOHN H., JR. (1975), B.A., Princeton Univ.; M.B.A., Harvard Univ.; Prof. Lect. in Bus. Admin.
BEAVERS, ALEX (1977), B.E., Vanderbilt Univ.; M.S., Ph.D., Univ. of Houston; M.B.A., Boston Univ.; Prof. Lect. in Tech. and Admin.
BECKER, DAVID M. (1976), A.B., J.D., Columbia Univ.; Lect. in Law.
BENNETT, LAWRENCE T. (1968), B.A., J.D., The Amer. Univ.; Prof. Lect. in Admin. of Justice.
BENNETT, WILLIS (1969), Lect. in Mus.
BENTLEY-MUSSEN, JOAN (1977), B.A., George Mason Univ.; M.A., Univ. of Conn.; Lect. in Admin. of Justice.
BEQUAI, AUGUST (1976), B.A., M.A., N.Y. Univ.; J.D., The Amer. Univ.; Prof. Lect. in Admin. of Justice.
BERG, SHELLEY (1976), Adj. Prof. of Perf. Arts.
BEYL, DAVID W. (1976), B.A., Portland Univ.; M.S., Georgetown Univ.; Prof. Lect. in English Lang.
BIERMAN, MARTIN I. (1972), A.B., Univ. of Mich.; J.D., Wayne State Univ.; Adj. Prof. of Admin. of Justice.
BLACK, UYLESS (1975), B.S., Univ. of N. Mex.; M.S., The Amer. Univ.; Lect. in Tech. and Admin.
BLACKWELL, WILLIAM S. (1976), B.A., Univ. of Richmond; Lect. in Comm.
BLAU, THOMAS (1976), B.A., N.Y. Univ.; M.A., Ph.D., Univ. of Chic.; Adj. Prof. of Govt. and Pub. Admin.
BLONG, CLAIR K. (1969), B.A., Loras Coll.; M.A., Marquette Univ.; Prof. Lect. in Admin. of Justice.
BLOOMFIELD, TIMOTHY J. (1973), B.A., Wesleyan Univ.; LL.B., Univ. of Va.; Lect. in Law.
BOELTE, EMIL (1977), Prof. Lect. in Lang. and For. Studies.
BOESEL, ANDREW W. (1972), B.A., Beloit Coll.; M.G.A., Univ. of Pa.; Adj. Prof. of Govt. and Pub. Admin.
BOOTHMAN, DONALD (1970), B.A., Oberlin Coll.; Prof. Lect. in Mus.
BORNSTEIN, ANDREW (1972), Prof. Lect. in Comm.
BOSAK, VINCENT J. (1973), B.S., Univ. of Scranton; M.A., The Amer. Univ.; Prof. Lect. in Tech. and Admin.
BOUL, JACK (1969), Certif., Cornish Sch. of Art, Adj. Prof. of Art.
BRADDOCK, JOMILLS H. (1976), B.A., Jacksonville Univ.; M.S., Ph.D., Fla. State Univ.; Prof. Lect. in Sociol.
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BRADY, KEVIN J. (1976), B.A., Boston Coll.; M.A., Tufts Univ.; Lect. in Lit.
BRANDA, ELIZABETH J. (1976), A.B., Tufts Univ.; J.D., Georgetown Univ.; Lect. in Law.
BRENNAN, JOSEPH P. (1967), A.B., Univ. of Notre Dame; M.B.A., The Amer. Univ.; Lect. in Bus. Admin.
BRIDGES, GEORGE S. (1977), B.A., Univ. of Wash.; M.A., Ph.D., Univ. of Pa.; Lect. in Admin. of Justice.

BROADUS, W.A., JR. (1976), B.S., Eastern Ky. Univ.; M.S.A., George Wash. Univ.; Prof. Lect. in Bus. Admin.
BROOKHART, CHARLES E. (1977), B.S., Io. State Univ.; J.D., The Amer. Univ.; LL.M., Georgetown Univ.; Lect. in Law.
BUCHANAN, JOHN E. (1972), B.S., Ga. Inst. of Tech.; M.B.A., Loyola Univ.; Lect. of Econ.
BUCKNER, MARTIN (1975), Adj. Prof. of Perf. Arts.
BUFFINGTON, MILTON W. (1973), B.A., LL.B., J.D., O. State Univ.; Adj. Prof. of Tech. and Admin.
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BURROUGHS, JOHN D. (1977), Lect. in Mus.
BUTT, HOLT FAIRFIELD, IV (1976), B.A., The Univ. of the South; M.A., George Wash. Univ.; Lect. in Educ.
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CARNEY, JAMES A., JR. (1976), B.A., Yale Univ.; Prof. Lect. in Govt. and Pub. Admin.
CARROLL, WALTER F. (1975), B.A., M.A., The Amer. Univ.; Lect. in Sociol.
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CASSIDY, JEANNE T. (1970), B.S., Columbia Univ.; M.A., Sarah Lawrence Coll.; Prof. Lect. in Lit.
CASTEDO-ELLERMAN, ELENA (1977), Profesora, Catholic Univ. of Chile; M.A., U.C.L.A.; Ph.D., Harvard Univ.; Prof. Lect. in Lang. and For. Studies.
CATRAVAS, GEORGE N. (1967), D. Ch., Univ. of Athens; Ph.D., Univ. of Leeds; D.Sc., Univ. of Paris; Adj. Prof. of Biol.
CELEDON, EILEEN M. (1977), B.S., Georgetown Univ.; Lect. in English Lang.
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CHAKARI, MIKHAEL HANNA (1976), B.A., Haigazian Coll. (Beirut); M.A., Eastern N. Mex. Univ.; Lect. in Math., Stat. and Comp. Sc.
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CHAMBLISS, JOHN C. (1970), B.S., U.S. Naval Acad.; B.S.E.E., U.S. Naval Postgrad. Sch.; M.S.E., Univ. of Mich.; Lect. in Tech. and Admin.
CHECKON, STEPHEN (1975), B.A., M.Ed., Ind. State Coll.; Ph.D., The Amer. Univ.; Prof. Lect. in Educ.
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CHRISTENSEN, WALLACE A. (1976), A.B., Boston Coll.; J.D., Harvard Univ.; Lect. in Law.
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CLARK, ROLF H. (1976), B.S., Yale Univ.; M.S., U.S. Naval Postgrad. Sch.; Ph.D., Univ. of Mass.; Adj. Prof. of Govt. and Pub. Admin.
CLARKSON, DONALD (1970), B.A., M.S.W., Howard Univ.; Adj. Prof. of Admin. of Justice.
COCHRANE, SHIRLEY GRAVES (1974), A.B., Agnes Scott Coll.; M.A., Johns Hopkins Univ.; Lect. in Lit.
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COLLURA, JANE H. (1975), B.A., Univ. of Md.; M.A., Catholic Univ.; Lect. in Lit.
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CONNELLY, SHARON L. (1976), A.B., Smith Coll.; M. Mgt., Vanderbilt Univ.; Prof. Lect. in Govt. and Pub. Admin.
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COOLEY, WILLIAM J. (1974), B.A., Marquette Univ.; J.D., DePaul Univ.; Prof. Lect. in Admin. of Justice.
COOPER, ANTHONY H. H. (1976), LL.B., Univ. of London; M.A., Univ. of Liverpool; LL.M., N.Y. Univ.; Lect. in Law.
COOPER, GERTRUDE V. (1974), B.S., M.A., Columbia Univ.; Ph.D., The Amer. Univ.; Prof. Lect. in Admin. of Justice.
CORNELISON, ALBERT O., JR. (1975), A.B., Univ. of Santa Clara; J.D., Univ. of Calif. (Davis); Lect. in Law.
COUNTTEE, THOMAS H., JR. (1972), B.A., The Amer. Univ.; J.D., Georgetown Univ.; M.B.A., Harvard Univ.; Prof. Lect. in Comnty. Studies.
COURIC, JOHN M. (1969), B.A., Mercer Univ.; M.A., The Amer. Univ.; Adj. Prof. of Comm.
COULTS, GILBERT D. (1971), B.A., Tex. Christian Univ.; Lect. in English Lang.
COVELLO, LEONARD V. (1976), B.S.F.S., Georgetown Univ.; M.A., The Amer. Univ.; Prof. Lect. in Govt. and Pub. Admin.
COWEN, SHEILA R. (1974), A.B., Mt. Holyoke Coll.; M.A., Ph.D., Univ. of Pa.; Prof. Lect. in Educ.
CROSBY, ROBERT D. (1975), A.B., Univ. of Va.; M.S., Univ. of Ariz.; Ph.D., U.C.L.A.; Prof. Lect. in Math., Stat. and Comp. Sc.
CROWN, DAVID A. (1971), B.S., Union Coll.; M.Crim., D.Crim., Univ. of Calif. (Berkeley); Adj. Prof. of Admin. of Justice.
CULBERTSON, STUART (1974), B.A., Ariz. State Univ.; M.A., Ph.D., Bowling Green State Univ.; Prof. Lect. in Psych.

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DAS, NOVEEN DAVID (1975), B.S., Forman Christian Coll.; B.S., M.S.S., The Punjab Univ.; Ph.D., The Amer. Univ.; Prof. Lect. in Chem.
DAVIDSON, JAMES H. (1977), B.J., J.D., Univ. of Mo. (Columbia); Lect. in Law.
DAVIS, CHARLES M. (1961), A.B., M.S., Catholic Univ.; Adj. Prof. of Phys.
DAWSON, DOUGLAS M. (1973), B.A., M.A., The Amer. Univ.; Lect. in Mus.
DAY, MARY H. (1975), Adj. Prof. of Perf. Arts and Founder and Dir. of The Wash. Ballet.
DEEM, MICHAEL (1972), B.A., Bellarmine Coll.; M.A., Ph.D., Catholic Univ.; Adj. Prof. of Educ.
DE JARNETTE KENNETH (1977), B.S., Univ. of Md.; Prof. Lect. in Bus. Admin.
DELANEY, JAMES A. (1976), B.A., M.S., Sou. Ill. Univ.; Lect. in Govt. and Pub. Admin.
DELPOPOLO, ANTHONY J., SR. (1976), B.S., State Univ. Coll. at Buffalo; M.A., George Wash. Univ.; M.S., State Univ. Coll. at Albany; D.A.G.S., Univ. of Va.; M.S.C.A., The Amer. Univ.; Prof. Lect. in Admin. of Justice.
DELUCA, SALVATRICE (1975), B.S., Georgetown Univ.; Lect. in English Lang.

- DEPRIEST, DOUGLAS** (1976), B.S., Hampton Inst.; M.S., Univ. of Tenn.; Ph.D., The Amer. Univ.; Prof. Lect. in Math., Stat. and Comp. Sc.
- DESIND, PHILIP** (1957), B.S., M.S., C.C.N.Y.; Adj. Prof. of Math., Stat. and Comp. Sc.
- DICENZO, ALAN** (1977), B.A., M.S., Ph.D., Case Western Reserve Univ.; Prof. Lect. in Math., Stat. and Comp. Sc.
- DICKSTEIN, LEONARD** (1974), B.A., Brooklyn Coll.; LL.B., Harvard Univ.; Prof. Lect. in Law.
- DIRDA, MICHAEL D.** (1975), B.A., Oberlin Coll.; M.A., Cornell Univ.; Lect. in Lit.
- DLUHY, MILAN** (1977), B.A., Univ. of Ill.; M.P.A., Sou. Ill. Univ.; Ph.D., Univ. of Mich.; Prof. Lect. in Govt. and Pub. Admin.
- DONAHUE, MORAIMA DE SEMPRUM** (1973), B.A., Assumption Coll. (Madrid); M.A., Univ. of Rochester; Ph.D., George Wash. Univ.; Adj. Prof. of Admin. of Justice.
- DOORE, GEORGE S.** (1970), B.A., O. Wesleyan Univ.; M.A., The Amer. Univ.; Lect. in Tech. and Admin.
- DOSKOW, MINNA** (1975), B.S., M.S., C.C.N.Y.; M.A., Univ. of Conn.; Ph.D., Univ. of Md.; Prof. Lect. in Lit.
- DOUGLAS, MILTON C.** (1970), B.S., D.C. Teachers Coll.; Lect. in Admin. of Justice.
- DRATH, VIOLA HERMS** (1977), M.A., Univ. of Nebr.; Prof. Lect. in Lang. and For. Studies.
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- DUFFNER, ELIZABETH** (1973), B.A., Catholic Univ.; M.A., The Amer. Univ.; Lect. in Educ.
- DUGAN, DENNIS J.** (1976), B.S., Creighton Univ.; Ph.D., Brown Univ.; Adj. Prof. of Bus. Admin.
- DUNN, CHRISTOPHER S.** (1977), B.A., Colgate Univ.; M.A., Ph.D., S.U.N.Y. (Albany); Prof. Lect. in Admin. of Justice.
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- EKMAN, RICHARD H.** (1976), A.B., A.M., Ph.D., Harvard Univ.; Adj. Prof. of Amer. Studies.
- ELFIN, MARGERY L.** (1973), B.A., Wellesley Coll.; M.A., New Sch. for Social Research; Ph.D., Columbia Univ.; Prof. Lect. in Admin. of Justice.
- ELLWOOD, JOHN W.** (1976), A.B., Franklin and Marshall Coll.; M.A., Ph.D., Johns Hopkins Univ.; Adj. Prof. of Govt. and Pub. Admin.
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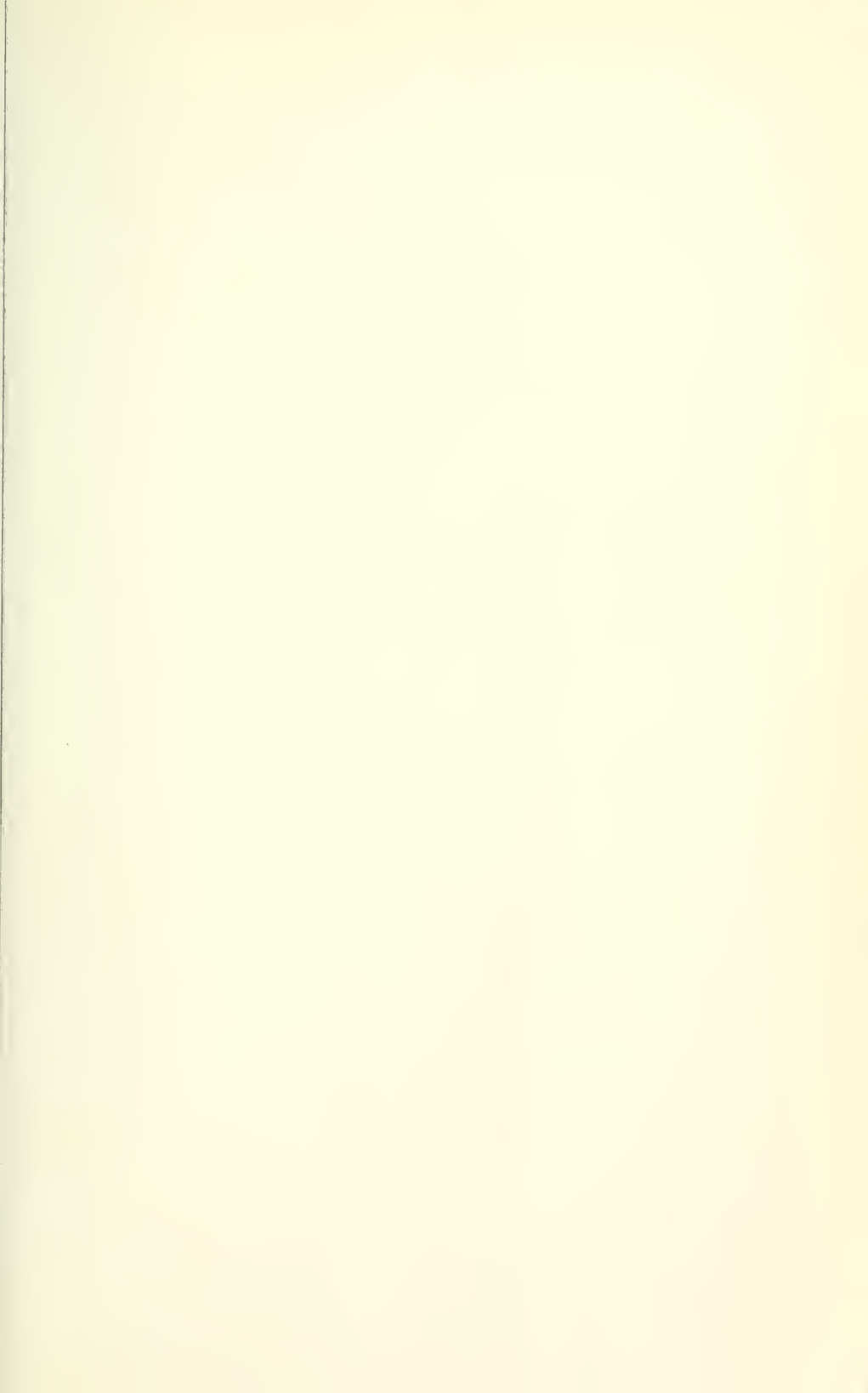
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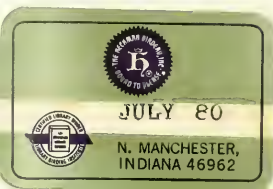
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